

Emotional Intelligence and Socio-economic Status as the determinants of Academic achievement among Adolescents

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Abstract:

Academic achievement is one of the important goals of education and affected by number of correlated factors including Emotional intelligence and Socio-economic status of adolescents. Researchers concluded that Emotional intelligence can predict academic success better than traditional measures of intelligence. The study aims to predict Academic achievement of adolescents with the help of independent variables Emotional intelligence and Socio-economic status. The research was carried out on a sample of 292 adolescents studying in class XI of Aligarh district. Standardized scales were used to collect the data which was analyzed by applying Mean (M), Standard Deviation (SD), t-test, Product Moment Correlation and Multiple Regression Analysis. Results indicate that significant gender differences exist in adolescents on the measure of Emotional intelligence however no significant differences were found between male and female adolescents on the measure of Socio-economic status and Academic achievement. Significant correlation was found among all the three variables under study. Socio-economic status and Emotional intelligence together brought 18.4% variance in Academic achievement indicating the importance of Emotional intelligence and Socio-economic status in predicting Academic achievement of adolescents.

Keywords: Academic achievement; Emotional intelligence; Socio-economic status; Adolescents; Correlation; Prediction

I. INTRODUCTION

One of the most significant outcomes of an educational set up is the Academic achievement of students. It is considered as a decisive factor to judge one's total potentialities and capacities. Administrators, teachers and parents worldwide give paramount importance to enhance the Academic achievement of students. Stagner (1962) defined Academic achievement as "a degree of proficiency or progress made by pupils in the mastery of school subjects". The idea was strengthened by Chaplin (1965) by concluding that "educational or academic achievement is the specified level of attainment or proficiency in academic work as evaluated by the teachers, standardized tests or by a combination of both". Many attempts have been made by educationists, psychologists and researchers to study various factors that affect Academic achievement of students. Singh (1976) pointed out that, Academic achievement is a complex variable, a resultant of diverse factors of different kinds intellectual and non-intellectual, interacting in a variety of ways. There are numerous factors that affects Academic achievement of students such as Intelligence, Self concept, study habits, Resilience, self efficacy, Academic anxiety, stress, school and home environment, peer influence, teacher's pedagogy and so on.

The increasing demand of quality education demands due importance to the predictors of Academic achievement. This is the fact that at present time researchers are focusing their studies to find out predictive value of different variables on Academic achievement. Goleman (1995) concluded that Emotional intelligence can predict academic success better than traditional measures of intelligence. Emotional Quotient

(EQ) is twice as important as Intelligent Quotient (IQ) and is four times as important in terms of overall success. Emotional intelligence is defined as "A form of intelligence that involves the ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey and Mayer, 1990). Individuals with high level of Emotional intelligence manage their emotions in a better way during stressful situations and are good decision makers. People with high EQ know the art of expressing emotions as much as controlling them (Barsade, 1998).

Research studies indicate that male and female students do not differ significantly on Emotional intelligence (EI) as observed by Sobha (2006); Subramanyam and Rao (2008) and Agnihotri and Donde (2014) contrary to the above findings Devi and Rayal (2004); Chu (2002); found that boys scored higher on Emotional intelligence as compared to their female counterparts. It was also observed by Sutarso (1999) and Nara (2014) that female students were significantly better in EI than their male counterparts. Sanchez-Nunez, Fernandez-Berrocal, Montanes and Latorre (2008) asserted that socialization process and emotional teachings of girls and boys in childhood play an important role in developing Emotional intelligence and that brings gender differences. They were of the view that girls receive wider spectrum of emotions from parents than do boys which make the former more adept at recognizing and expressing emotions. Marquez, Martin and Brackett (2006); Jatinder (2014) found significant correlation between Emotional intelligence and Achievement scores while Nelson and

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Low (2004) in one of their studies emphasized that Emotional intelligence skills have a great impact on students' achievement and retention especially during transition period of high school graduates in the first year of college.

As far as prediction of Academic achievement is concerned studies indicate that Emotional intelligence significantly predicts Academic achievement. Parker et al (2004) observed that Emotional intelligence predicts identification of academically successful students from unsuccessful students during transition period. Students in the top academic group had higher levels of interpersonal, adaptability, and stress management abilities. The successful students scored higher on interpersonal abilities compared to less successful students and the academic groups did not differ with respect to intrapersonal abilities.

Downey et al. (2008) conducted Regression analysis and results revealed that dimensions of the Adolescent SUEIT (Adolescent Swinburne University Emotional intelligence Test) differentially predicted secondary school subject grades. Ogundokun and Adeyemo (2010) found Emotional intelligence, age and Academic Motivation as potent predictors mildly associated to Academic achievement. Yazici, Seyis and Altun(2011) observed that One of the dimensions of Emotional intelligence "being aware of the emotions" was found to be a positive predictor of academic success of students moreover the Academic achievement differed by gender and socio-economic status. Academic success of female students were found to be significantly higher than male students further the investigators observed that students with higher level of socio-economic income had meaningfully higher academic average than academic average of students with middle socio-economic income and low socio-economic income.

Socioeconomic status (SES) is another most widely used latent variable in research studies to find its impact on school achievement of students. Socio-economic status is the position that an individual or family occupies with reference to the prevailing average standard of cultural possessions, effective income, material possessions and participation in group activity of the community Chapin (1928). Bearing the same Kulshrestha (1979) defined Socio-economic status as "any group of persons coming closer to each other on the continuum of occupation, income, education and culture". High SES of parents is connected with higher income, higher levels of education and better health opportunities and hence contributes to better academic performance of the children. Studies conducted by White (1982), Guestafson (1992), Million (1993) indicates Socio-economic status to be significantly correlated with Academic achievement of students. Saifi and Mehmood (2011) studied the effects of various aspects of SES on student's Academic achievement. The results indicated that parent's education and occupation and facilities provided at home affect the student's achievement. Dahie (2016) found that Academic achievement had significant positive correlation with parents' education, occupation and income.

Yazici, Seyis and Altun (2011) found that the Academic achievement differed by gender and socio-economic status and students with higher level of socio-economic income had higher academic average than academic average of

students with middle socio-economic income and low socio-economic income contrary to the above findings Agnihotri and Donde (2014) observed that male and female students do not differ significantly on Socio-economic status. Akhter (2012) observed that the SES of parents had 5 percent contribution in students' Academic achievement.

On the basis of researches quoted it can be said that fair amount of studies have been conducted on Emotional intelligence and Socio-economic status and their correlation with Academic achievement but there is dearth of studies showing predictive value of Emotional intelligence and Socio-economic status on Academic achievement of adolescents. An attempt was made to fill the research gap of the same. The present study aims to throw light by predicting Academic achievement of adolescents by employing the variables Emotional intelligence and Socio-economic status.

II. OBJECTIVES OF THE STUDY

The objectives of the present study are as follows.

1. To study the level of Emotional intelligence, Socio-economic status and Academic achievement of the selected sample.
2. To compare Male and Female students with respect to
 - Emotional intelligence (dimension-wise)
 - Socio-economic status
 - Academic achievement.
3. To see the relationship among the variables Emotional intelligence, Socio-economic status and Academic achievement.
4. To find out the predictive value of Emotional intelligence and Socio-economic status on the Academic achievement of adolescents.

III. HYPOTHESES

On the basis of the above mentioned objectives the investigators developed null hypotheses as follows.

1. Emotional intelligence, Socio-economic status and Academic achievement of male adolescents do not differ significantly from their female counterparts.
2. There will be no significant correlation among the variables Emotional intelligence, Socio-economic status and Academic achievement.
3. Emotional intelligence and SES while pooled do not play a significant role in predicting the Academic achievement of adolescents.

IV. METHODOLOGY

A. Sample

Population of the present study includes all the adolescents studying in various Secondary schools in Aligarh district of U.P. India. The sample consists of 292 (143 females, 149 Males) students studying in class XI selected from 7 different Secondary schools in Aligarh. Incidental sampling technique was employed. The age range of the students was found to be 16 to 18 years.

B. Tools used for the present study

In order to meet the needs and objectives of the study, following tools were employed.

1. Mangal Emotional Intelligence Inventory (MEII): The Emotional Intelligence Inventory constructed and standardized by Mangal and Mangal (2012) was employed to measure the Emotional intelligence of students. It consists of 100 items depicting four areas Intrapersonal Awareness, Interpersonal Awareness, Intrapersonal Management and Interpersonal Management. The reliability of the tool as given by authors, determined by test-retest method was .92, split half method was .89 and K-R Formula was .90 respectively. The validity had been established by using factorial and criterion related approach. The correlations among the four areas vary from .437 and .716.

2. Socio-economic Status Scale by Kalia and Sahu (2012): The scale comprises of 40 items with five dimensions of socio-economic parameters viz. Socio-cultural component, Economic component, Possession of goods and services, Health component and Educational Component. According to the authors reliability of the scale has been measured by split-half (.68) and test-retest method (.86). The criterion validity was found to be 0.85

3. Academic Achievement (ACA ACH): In the present study, marks or Cumulative Grade Point Average (CGPA) obtained by students in their class X final examination was considered and converted into percentages that represent students' Academic achievement.

C. Statistical Techniques Used

Keeping in view of the objectives and hypotheses formulated for the study following statistical techniques were used for analysis and interpretation of data.

In order to compare EI, SES and Academic achievement of male and female students t test was applied. Product Moment Correlation was used to find relationship and to predict the Academic achievement of students, Stepwise method of Multiple Regression analysis technique was employed by making use of Statistical Package for Social Sciences (SPSS) 20.0 version.

V. DATA ANALYSIS AND INTERPRETATION

Table: 1 Distribution of Emotional intelligence scores

Group	N	Mean	SD	Skewness	Kurtosis
Male	149	59.74	11.698	-.046	.974
Female	143	62.73	10.54097	.011	-.173
Total	292	61.21	11.23	-.062	.54

It is revealed from table 1 that Mean EI score of the total sample of 292 students was 61.21 with SD 11.23. Female students with 62.73 had higher mean score than Male students (M=59.74). The value of skewness for all the three groups is closer to the normal value of zero. This implies that the distribution is almost normal for the scores on Emotional intelligence. The distribution is slightly negatively skewed for the male and total sample.

Table: 2 Distribution of Socio-economic Status scores

Group	N	Mean	SD	Skewness	Kurtosis
Male	149	67.72	16.55	.521	-0.25
Female	143	68.43	16.60	.870	1.356
Total	292	68.02	16.55	.633	0.49

The Mean SES score of the total sample as revealed from Table 2 was 68.02 with SD 16.55. Mean SES score for Male adolescents was found to be 67.72 and for female adolescents was 68.43. The mean score of SES for all the three groups under study falls in the High SES category as per the manual. The value for skewness (.633) indicates positive skewness of the distribution and it is closer to the normal value of zero.

Table 3: Distribution of Academic achievement scores

Group	N	Mean	SD	Skewness	Kurtosis
Male	149	71.5678	13.40819	.246	-1.28
Female	143	73.14	11.566	.224	-.963
Total	292	72.34	12.54	.209	-0.73

The table 3 reflects that Mean Academic achievement score of adolescents was observed to be 72.34 with SD 12.54. Male adolescents with 71.57 Mean Achievement score was slightly lower from their female counterparts (M=73.14). The value for skewness for all the above said groups also indicates that the distribution was slightly positively skewed.

The value of kurtosis for all the three variables as revealed from tables 1, 2 and 3 were in the range of -2 to +2, thus it may be accepted as normal. The above statistics show that the distribution of scores for the total sample are fairly normal.

Table 4: Comparison of EI of Male and Female Adolescents

Dimensions	Male (N=149)		Female (N=143)		t value
	Mean	SD	Mean	SD	
Intra personal Awareness	15.54	3.621	16.19	3.713	1.502
Inter personal Awareness	14.86	3.740	15.17	3.919	.704
Intra personal Management	15.51	3.384	15.95	3.841	1.039
Inter personal Management	14.56	3.704	15.48	3.37	2.191*
EI Total	59.74	11.698	62.73	10.54	2.296**

* Significant at .05 level

** Significant at .01 level

It is evident from the table 4 that the mean scores of male and female adolescents were 15.54 and 16.19 respectively on Intra personal Awareness. The 't' value (1.502, p>.01) obtained indicates that no significant difference exists between the said groups on Intra personal Awareness. The t value of .704 and 1.039 were found non significant at .05 level indicating that male and female students have no significant difference as far as Interpersonal Awareness and Intra personal Management are concerned. Significant difference was observed on the dimension of Inter personal Management (t value= 2.191, p<.05) with male adolescents having a mean score of 14.56 and female adolescents with a mean score of 15.48.

The table also makes clear that the calculated t value was 2.296 which was significant at 0.01 level on the measure of total Emotional intelligence, hence null hypothesis was rejected proving that there was a significant difference between both the gender as far as Emotional intelligence is concerned going in favour of female adolescents.

Table 5: Comparison of SES and Academic achievement of Male and Female adolescents

Variables	Male(149)		Female(143)		t value
	Mean	SD	Mean	SD	
SES	67.62	16.55	68.43	16.60	.414
ACA ACH	71.57	13.41	73.14	11.57	1.07

Non Significant at .05 level

Table 5 shows that mean score of male adolescents on SES was 67.62 slightly lower than the mean score of female adolescents (m= 68.43) however the t value of .414 was found insignificant at .05 level. It is also clear from the table that male adolescents obtained a mean score of 71.57 on Academic achievement and female adolescents obtained mean score of 73.14. The computed t value was 1.07 on Academic achievement which was found insignificant at 0.05 level (p>.05). This indicates that male and female adolescents do not differ in their Academic achievement. Null hypothesis was accepted in both the cases.

Table 6: Correlation Matrix of Emotional intelligence, Socioeconomic status and Academic achievement

Variables	EI	SES	ACA ACH
EI	1	.212**	.271**
SES		1	.379**
ACA ACH			1

** Significant at .01 level

It is clear from table 6 that Emotional intelligence shows significant positive correlation with Socio-economic status (.212) as well as Academic achievement (.271) at .01 level. Similarly SES is correlated to Academic achievement (r=.379). Null hypothesis was rejected in all the above cases.

Table7: Determinants (EI and SES) of Academic achievement for Total sample

Variables	R	R ²	R ² change	Beta	Regression coefficient	F
SES	.379	.144	.144	.337	.255	48.67**
EI	.426	.182	.038	.200	.223	32.127**

**Significant at .01 level

Constant 41.311

Table 7 highlights the results of Stepwise method of Multiple Regression analysis. It indicates that when independent variables, Emotional intelligence and SES were added , ‘F’ ratio was found significant at .01 level for both variables. The percentage of variance explained by SES alone is 14.4%. and EI contributes 3.8% variance in Academic achievement. SES together with EI accounts to 18.2% variance in Academic achievement.

The regression equation to predict Academic achievement score of an adolescent not included in the present sample can be written as follows

$$\bar{Y} = .255X_1 + .223X_2 + 41.311$$

Where \bar{Y} represents predicted Academic achievement scores, X_1 represents raw scores on SES and X_2 represents raw scores on EI while 41.311 is the Constant.

VI. RESULTS AND DISCUSSION

The results of the present research study indicate the importance of Emotional intelligence and Socio-economic status in predicting Academic achievement of adolescents . It was observed that Emotional intelligence of adolescents falls in the average range and Socioeconomic status of students falls in High SES category.

The study indicate that gender difference exists among adolescents as far as their Emotional intelligence is concerned similar to the findings of Sutarso (1999) and Nara (2014) however, the result contradict with the studies conducted by Chu (2002); Devi and Rayal (2004). Interpersonal management skills of students are important for maintaining healthy relationships with peer groups and teachers in the class room. Maintaining healthy classroom environment contributes to better learning atmosphere. It was observed that gender differences exist in interpersonal management skill dimension of Emotional intelligence. Female students have better interpersonal management skills when compared to their male counterparts dissimilar to the findings of Bala (2011) who observed significant gender difference and going in favour of boys. However no gender differences were found on EI dimensions like Interpersonal Awareness, Intrapersonal Awareness and Intrapersonal management skills.

Adolescents did not differ by gender on the measure of Socio-economic status and Academic achievement. EI was found to be significantly correlated with Academic achievement similar to the studies conducted by Marquez et al (2006) and Jatinder (2014) . EI was also correlated with SES corroborates with the results of Agnihotri and Donde (2014) who observed significant correlation on the said variables in both the gender. Similarly Socio-economic status of adolescents was found to be significantly correlated with Academic achievement of adolescents substantiated with the findings of White (1982); Guestafson (1992)and Million (1993).

The study also observed that overall SES and EI of students were found to be significant predictors of Academic achievement in line with the findings Shah et al (2012); Parker et al (2014); Downey et al. (2008; Harikrishan, M. (1992). SES together with EI contributes to 18.2% variance in Academic achievement with SES emerged at the top with 14.4 % variance in Academic achievement.

VII. EDUCATIONAL IMPLICATIONS

The present study is a humble attempt to understand the of Emotional intelligence and Socio-economic status as determinants of Academic achievement among adolescents.

The study suggests that due consideration should be given in schools to the affective aspect of intelligence of students in order to improve their academic performance. In case of adolescents, it becomes more important to equip them with emotional and social skills as the adolescents at this period of age are in a state of anxiety, stress and confusion. Teachers can adopt cooperative learning approaches by encouraging students to take part in group activities and discussions to promote better interactions so as to develop their interpersonal awareness and management skills. In this age of alienation and isolation electronic media is hampering the emotions and academic performance of adolescents. Better parent child relationships and favorable family environment is the need of the hour to help the adolescents to overcome their problems.

The present study, further, proved that SES significantly predicts Academic achievement of students. With the implementation of RTE, Indian classrooms have become more heterogeneous with students coming from different socio-economic background. Academic achievement of heterogenous group is a gigantic task. In this backdrop it becomes vital that schools should approach the students by providing conducive school environment, assisting them to acquire better study strategies and motivating them to achieve higher grades. Teachers by employing different teaching techniques can help the students for better retention process and better performance thereby can help to overcome the deficit of poor SES of adolescents.

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