

A Study of Relationship Between Emotional Intelligence and Academic Achievement of Senior Secondary School Students

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Abstract

The present study is an attempt to study the relationship between emotional intelligence and academic achievement of senior secondary school students. A total of 200 students of XIIth class from various urban and rural area government schools of Chandigarh were randomly selected for the present study. The students were categorized on the basis of their gender and 50 students each from both gender and locality (rural and urban) category respondent were surveyed. Results revealed that although gender had no effect on emotional intelligence but the emotional intelligence of students of urban area was greater than that of students of rural area. Analysis of relationship among emotional intelligence and academic achievement indicated that there is positive and significant relation among emotional intelligence and academic achievement of the participants.

Keywords: Emotional intelligence, Academic achievement

Education, no doubt, remains the most outstanding development priority area in the world today. The core purpose of education, unquestionably, is human development. Other things being equal, an educated person who is well or relevantly positioned in the socio-economic, cultural and political milieu is expected to be a valuable asset to the society than another individual who is illiterate and perhaps ignorant. This explains why researchers and scholars all over the world continue to do research into ways of improving human knowledge and development.

However, achievement is the end product of a learning experience. Attaining a high level of academic performance is what every parent or guardian as well as teacher wishes their children, wards and students. Schools and teachers are generally graded qualitatively by achievement based on the performance of their students. We educate students with one main objective in mind: their success. How can we measure success? Is a strong scientific mind only responsible for success. No, it was in the past, but now some fundamental new theories have been introduced such as the multiple intelligence theory (Gardner, 1983) and the emotional intelligence theory (Goleman, 1995).

Goleman (1995) gave a short of answer when he asserted that success depends on several intelligence and on the control of emotions. Specifically, he stressed that intelligence (IQ) alone is no more the measure of success. According to him intelligence accounts for only 20% of the total success, and the rest goes for Emotional and Social Intelligence.

Academic achievement is generally regarded as display of knowledge attained of skills developed in the school subjects (Busari, 2000). It is the level of performance in school subjects as exhibited by an individual (Ireogebu, 1992). Over the past years, extensive research has been conducted on variables predictive of academic performance. Researchers who have sought to discover factors associated with high academic performance have examined an array of variables such as social behavior (Taylor, Casten, Flickinger, Roberts and Fulmore, 1994); academic self-concept (Steele and Aronson, 1995); motivation (Deci and Ryan, 1985, 1992; Vallerland, Fortier and Guay, 1995). We can easily see that most of these factors are included in the components of emotional intelligence.

In January 2000, Coover and Murphy conducted a study that examined the relationship between self-identity and academic persistence and achievement in a counter stereotypical domain. The study also revealed that self-identity improves through social interaction and communication with others, which would enhance achievement.

Farooq (2003) examined the effect of emotional intelligence on academic performance of 246 adolescent students and found that students with high emotional intelligence show better academic performance than the students with low emotional intelligence.

Fernandes and Rego (2004) found that emotional intelligence is an important predictor of student's satisfaction with life, health and academic achievement. Qualter, Whiteley, Hutchinson, and Pope (2007) found that higher levels of emotional intelligence facilitate students ability to cope with the transition from primary to secondary level. Khokkar and Kush (2009) found that high emotional intelligence in executives brings about better quality of work performance.

The inclusion and interaction relationship of the variable i.e. emotional intelligence with academic performance is expanding the frontiers of knowledge among educational psychologists, guidance counselor, teachers, researchers as well as curriculum planners when developing intervention programs. It is the primary purpose of this study therefore to investigate whether there is any relationship between this intelligence and academic achievement. If the results turn out to be positive, then, in order to prepare better students it might be better to include emotional intelligence in the school and even university curricula.

Objectives of the study

The study aims to investigate whether the gender and student's background has any affect on his emotional intelligence and academic achievement. The study also aims to see the relationship between emotional intelligence and academic achievement of students. Following Null hypothesis were formulated.

Hypothesis

1. There is no significant difference between emotional intelligence of girls and boys.
2. There is no significant difference between emotional intelligence of rural and urban students.
3. There is no significant difference between academic achievement of girls and boys.

4. There is no significant difference between academic achievement of rural and urban students.
5. There is no significant relationship between emotional intelligence and academic achievement of students

Methodology

Tools used

1. Seven fold emotional intelligence scale (SFEIS) standardized and cross validated by Khera, Ahuja, and Sarabjit kaur (2002).
2. Academic achievement was taken from the marks obtained by the students in the final exams of class XIth.

Sample of the study

A stratified randomization technique of sampling was employed for collection of data. A sample of 200 students of XIIth class of government schools of Chandigarh were taken. Schools were selected both from rural sectors and urban sectors of Chandigarh.

Data analysis & interpretation of results

SPSS 16.0 Statistical Software was used to analyze the surveyed data reported from the 200 students from various urban and rural area schools. The students were categorized on the basis of their gender i.e. male and female and 50 students each from both gender and locality (i.e. rural and urban) category respondent were surveyed regarding their Emotional Intelligence and Academic Achievement Scores., t – test analysis was performed between the male and female students & rural and urban students on the scores of Emotional Intelligence and Academic Achievement. Correlation analysis along with Scatter diagram was evaluated in between the Emotional intelligence and Academic Achievement scores. Chi square analysis was performed to find any relation between the levels of Emotional Intelligence and Academic Achievement.

Results: Results of the study are presented in tabular form

H_{01} : There is no significant difference between the Emotional Intelligence of girls and boys

The analysis of Table 1 showed that there was no significant difference between the emotional intelligence scores of male and female students as null hypothesis H_{01} was accepted at 5% level of significances because $p - \text{value} = 0.234 > 0.05$.

Table 1: t – test Analysis of Emotional intelligence Scores among Male and Female Students

	Gender	N	Mean	SD	t – test	p – value
Emotional intelligence Score	Male	100	190.60	11.601	1.194	0.234
	Female	100	192.32	8.536		

Also the emotional intelligence score of male students was 190.60 with standard deviation of 11.60 which was similar to emotional intelligence score of female students i.e. 192.32 with standard deviation of 8.53.

Therefore our first Hypothesis that there is no significant difference between the emotional intelligence of girls and boys is accepted.

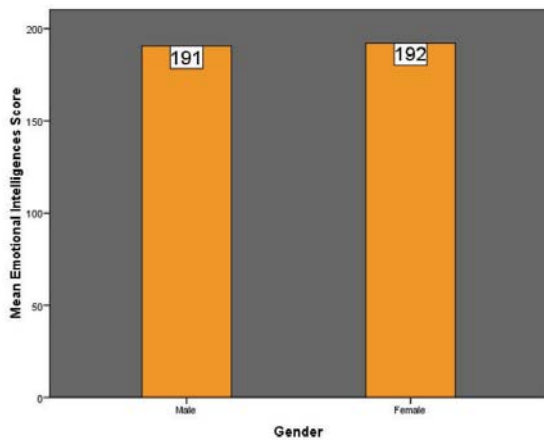


Fig.1: Bar diagram showing difference between mean Emotional Intelligence scores of male and female students

Also the emotional intelligence score of rural students was 187.72 with standard deviation of 10.16 which was lesser to emotional intelligence score of urban students i.e. 195.20 with standard deviation of 8.79.

Therefore our second hypothesis that there is no significant difference between the emotional intelligence scores of rural and urban students is not accepted.

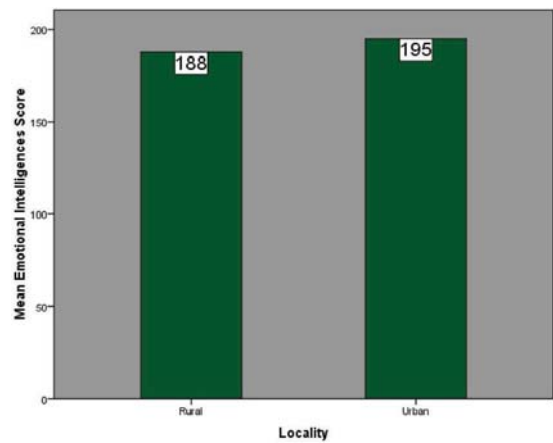


Fig. 2: Bar diagram showing difference between mean Emotional Intelligence scores of rural and urban students

Table 2: t – test Analysis of Emotional intelligence Scores among Rural and Urban Students

	Locality	N	Mean	SD	t – test	p – value
Emotional intelligence Score	Rural	100	187.72	10.166	5.565	0.005
	Urban	100	195.20	8.794		

H₀₂: There is no significant difference between the Emotional Intelligence of rural and urban Students.

The analysis of Table 2 showed that there is significant difference between the emotional intelligence scores of rural and urban students as null hypothesis H₀₂ is not accepted at 5% level of significances because p – value = 0.005 < 0.05.

H₀₃: There is no significant difference between the Academic Achievement of Girls and Boys

The analysis of Table 3 showed that there was significant difference between the academic achievement scores of male and female students as null hypothesis H₀₃ is not accepted at 5% level of significances because p – value = 0.020 < 0.05.

Table 3: t – test Analysis of Academic Achievement Scores among male and female Students

	Gender	N	Mean	SD	t – test	p – value
Academic Achievement Score	Male	100	62.94	10.692	2.349	0.020
	Female	100	66.80	12.479		

Thus the academic achievement score of male students was 62.94 with standard deviation of 10.69 which was much lesser than academic achievement score of female students i.e. 66.80 with standard deviation of 12.47.

Therefore our third Hypothesis that there is no significant difference between the Academic Achievement of girls and boys is not accepted.

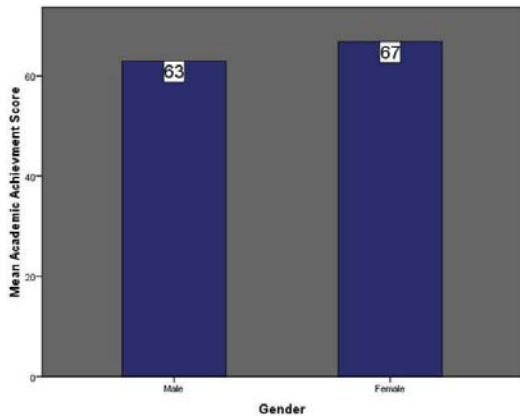


Fig. 3: Bar diagram showing difference between mean Academic Achievement scores of male and female students

Table 4: t – test Analysis of Academic Achievement Scores among Rural and Urban Students

	Locality	N	Mean	SD	t – test	p – value
Academic Achievement Score	Rural	100	59.68	11.194	6.949	0.005
	Urban	100	70.06	9.891		

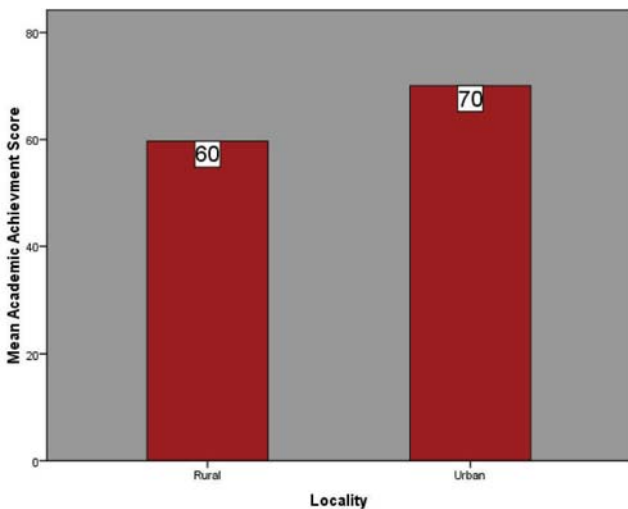


Fig. 4: Bar diagram showing difference between mean Academic Achievement scores of rural and urban students

H₀₄ There is no significant difference between the Academic Achievement of Rural and Urban Students

The analysis of Table 4 showed that there is significant difference between the academic achievement scores of rural and urban students as null hypothesis H₀₄ is not accepted at 5% level of significances because p – value = 0.005 < 0.05.

Thus the academic achievement score of rural students was 59.68 with standard deviation of 11.19 which was much lesser than academic achievement score of urban students i.e. 70.06 with standard deviation of 9.89.

Therefore our fourth Hypothesis that there is no significant difference between the academic achievement of rural and urban students, is not accepted.

H₀₅: There is no significant relationship between Emotional intelligence&Academic Achievement of students

Table 5: Correlation Analysis of Emotional intelligence & Academic Achievement

Emotional intelligence	Correlation	Sig. (2 – tail)	N
Academic Achievement	r = 0.227	0.001	200

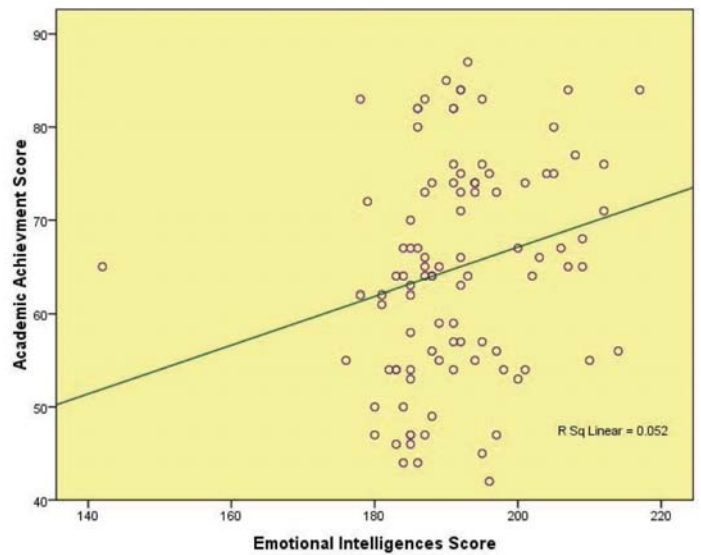


Fig. 5: Scatter diagram showing correlation between Emotional Intelligence and Academic Achievement of students

The correlation reported in the Table 5 is positive i.e. $r = 0.227$ and significant as the p-value of 0.001 is less than 0.05 at 5% level of significances. Thus null hypothesis H_{05} is not accepted in this case, this suggests that there does exist considerable relationship between Emotional intelligence & Academic Achievement.

Therefore our fifth Hypothesis that there is no significant relationship between Emotional Intelligence and Academic Achievement of students is not accepted.

H_{06} : There exists no relationship between the levels of Emotional Intelligence & Academic Achievement of students.

3. There is significant difference between the academic achievement scores of male and female students. Hence the Hypothesis -3 that there is no significant difference between the academic achievement of girls and boys is not accepted.
4. There is significant difference between the academic achievement scores of rural and urban students. Hence the Hypothesis -4 that there is no significant difference between the academic achievement of rural and urban students is not accepted.
5. There exists considerable relationship between emotional intelligence and academic achievement of students as

Table 6: Cross tabulation Analysis of Emotional intelligence & Academic Achievement of all 200 Students

Academic Achievement		Less than 33(Poor)	34 - 65 (Average)	66 & above (Good)	Total	$X^2 - \text{Test}$
Emotional intelligence	Less than 103 (Low)	0	0	0	0	1.721p = 0.501
	103 - 145 (Average)	0	2	0	2	
	146 & above (High)	0	106	92	198	
Total		0	108	92	200	

The analysis of Table 6 showed that there does not exist any significant relationship between the Emotional intelligence and Academic Achievement of students ($X^2 - \text{value} = 1.721, p = 0.501 > 0.05$), thus null hypothesis assumed at 5% level of significances was accepted in this case.

Therefore our sixth Hypothesis that there exists no relationship between the levels of Emotional Intelligence and Academic Achievement of students is accepted.

Conclusion

The present study reveals the relationship between academic achievement and emotional intelligence of senior secondary school students. Hypothesis wise findings revealed:

1. There is no significant difference between emotional intelligence scores of male and female students. Hence the Hypothesis -1 that there is no significant difference between the emotional intelligence of girls and boys is accepted.
2. There is significant difference between the emotional intelligence scores of rural and urban students. Hence the Hypothesis -2 that there is no significant difference between the emotional intelligence of rural and urban students is not accepted.

suggested by correlation values. Hence our Hypothesis - 5 that there is no significant relationship between emotional intelligence and academic achievement of student is not accepted.

6. There does not exist any significant relationship between the levels of emotional intelligence and academic achievement. Hence Hypothesis -6 that there exists no relationship between the levels of emotional intelligence and academic achievement of students is accepted.

The study has educational implications for teachers and the students:

- The result of the present study helps us to find out the role of demographic variables on emotional intelligence and academic achievement of students.
- Since emotional intelligence has considerable relationship with academic achievement hence it becomes quite imperative that serious efforts should be made for its proper development, right from the early childhood.
- The present study will be of great importance for the teachers and parents since little carelessness in handling the adolescents may have serious repercussions on their emotional intelligence.

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