

EMOTIONAL INTELLIGENCE OF CLASS X STUDENTS IN RELATION TO THEIR ACADEMIC ACHIEVEMENT IN MATHEMATICS

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Abstract

The Present study was conducted to find out the relationship between Emotional Intelligence and Academic achievement in Mathematics of class X students. Representative sample of 140 students of class X students from schools of Chandigarh was selected randomly. The Tools used for the study were Emotional Intelligence test by Dr. Anita Soni and Dr. Ashok Sharma (2009) and Achievement Test in Mathematics Multiple Choice Questionnaire, (ATMCQ) by Dr. Nagappa P. Shahapur and Dr. K.M. Aslam Khan, National Psychological Corporation, Agra (2009). The Study revealed that the female students had slightly higher emotional intelligence than male students and there was significant difference in academic achievement of male and female students. Further, from the study it was found that there was significant relationship between Emotional Intelligence and academic achievement of class X students.

Introduction

The Scope of Education is very vast. The Goal of education is not only to provide knowledge but also to prepare the individual for future life. As societies grow and achieve more and more progress, human wants multiply and acquiring of new skills becomes inevitable for members. Education means how an individual conduct himself under different circumstances, situations and people. Intelligence is an individual's ability to learn.

Emotional intelligence is the "something" in each of us that can't be expressed easily. Balanced approach refers to emotional intelligence.

Emotional intelligence is made up of four core skills that pair up two primary competencies: personal competence and social competence. Emotional intelligence is a right mixture of head and heart-Mayer and Salovey (1995). Emotional intelligence taps into a fundamental element of human behavior that is distinct from individual's intellect. When an individual graduates, the only thing that matters is his knowledge and the ability to operate within the system. This anomaly clearly brings out that there is no single source of success; rather there are many factors that affect an individual's success. Many researches now point to emotional intelligence as the critical factor that sets star performers apart from the rest of the pack.

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Academic achievement represents performance outcomes that indicate the extent to which a person has accomplished specific goals. Therefore, academic achievement should be considered to be a multifaceted construct that comprises different domains of learning. All learning has an emotional base."-Plato. Academic achievement acts as an emotional tonic. Sound academic records are the pillars on which the entire future personality built-up stands.

Mathematics is the subject which is needed in almost every field. The National policy of education has also considered the importance of mathematics in general education, but results in mathematics are showing negative deviations. Many students find mathematics very difficult and leave mathematics for one or the other reason, attempts have been made in this direction using intelligence test scores and other intellectual factors as predictors of academic success but were found to be of very limited use. It has been realized that there is a need to go beyond the traditional criterion of academic success, there is a growing realization that other factors like sociological, non-cognitive, cognitive and environmental factors must be assessed in order to diminish the margin error in the prediction of academic achievement. The Present study has been undertaken to explore the relationship between Emotional intelligence and Academic achievement in mathematics of class X students.

Objectives of the study

1. To study the difference between Emotional Intelligence of male and female students of class X.
2. To study the differences between Academic Achievement of male and female students of class X in mathematics.
3. To study the relationship between emotional Intelligence and academic achievement of class X students in mathematics.

Hypotheses

1. There exists no significant difference between emotional intelligence of male and female students of class X.
2. There exists no significant difference between academic achievement of male and female students of class X in mathematics.
3. There exists no significant relationship between the emotional intelligence and academic achievement of class X students in mathematics.

Design of the study

Descriptive method of research was employed for the study.

Sample

The Sample of the present study comprised of 140 students (70 boys and 70 girls) of class X between the age group of 14-16 years selected through random sampling method from three different schools of Chandigarh.

Tools used

1. Emotional Intelligence Test by Dr. Anita soni and Dr. Ashok Sharma, Arohi Manovigyan Kendra, Jabalpur (2009) with reliability and validity coefficient 0.81 and 0.72 respectively.
2. Achievement Test in Mathematics Multiple Choice Questionnaire, (ATMCQ) by Dr. Nagappa P. Shahapur and Dr. K.M. Aslam Khan, National Psychological Corporation, Agra (2009) with reliability and validity coefficient 0.85 and 0.92 respectively.

Results and Discussions

Table I Comparison of mean scores of Emotional intelligence of male and female students

Group	N	Mean	SD	t-value	Level of significance
Male students	70	56.11	6.32	5.0369*	Significant at both 0.01 and 0.05 level
Female students	70	62.21	7.92		

Table I shows the Mean scores and standard deviation of emotional intelligence of male and female students. The Mean value of emotional intelligence of male students was 56.11 and that of female students was 62.21, which shows that mean score of emotional intelligence of female students is higher than that of male students, which indicates that female students are emotionally more intelligent than male students. The t- value is found to be 5.0369 which is significant, which indicates that female students differ from male students significantly in their emotional intelligence. Therefore the null hypothesis I, i.e. "There is no significant difference between the emotional intelligence of male and

female students" is rejected.

Table II: Comparison of mean scores of Academic Achievement in mathematics of male and female students

Group	N	Mean	SD	t-value	Level of significance
Male students	70	53.17	7.58	5.7530*	Significant at both 0.01 and 0.05 level
Female students	70	61.57	9.58		

Table II shows the Mean and standard deviation of academic achievement in mathematics of male and female students. The Mean score of academic achievement of male students was found to be 53.17 and that of female students was found to be 61.57 which show that academic achievement of female students is moderately more than that of male students. The t- value was found to be 5.7530 which is significant at both the levels, which indicates that male and female students differ significantly in their academic achievement. Therefore the null hypothesis II, i.e."There is no significant difference between the academic achievement of male and female students" is rejected.

Table III : Correlation between Emotional Intelligence and Academic Achievement in Mathematics

Variables	Academic Achievement	Emotional Intelligence
Emotional Intelligence	1	0.781*
Academic Achievement	0.781*	1

Table III shows the coefficient of correlation between emotional intelligence and academic achievement in mathematics of students is 0.781, which is higher than the value at 0.05 as well as at 0.01 level of significance.

Therefore The Null hypothesis III that "There exists no correlation between emotional intelligence and academic achievement in mathematics of class X students" is rejected.

Findings and conclusion

The Study revealed that the Mean of emotional intelligence of female students is higher than that of male students. This result supports the earlier results by Habibah et al (2007), Audrey and Eagen (2007), A.B. Festus (2012) who showed that emotional intelligence of females is more than that of males. Also academic achievement of female students in mathematics is found to be moderately higher than male students. Further, there is moderately positive correlation between emotional intelligence and academic achievement in Mathematics of the class X students. These results support the findings by other researchers (Nada, 2000; Rahil et al, 2008; A. B. Festus, 2012) that Emotional intelligence positively correlates with student's academic achievement. These results reveal that the performance of cognitive domain is affected by the affective domain .When a child is emotionally unstable; he/she can never concentrate on his learning. So, in order to get positive results in mathematics, apart from cognitive factors, non-cognitive factors should also be included. There should be program for emotional intelligence training for both teachers and parents.

Educational implications

The Study revealed that the Mean of emotional intelligence of female students is slightly higher than that of male students. Further academic achievement of female students is more than that of male students and both emotional intelligence and academic achievement are positively correlated. The study implies that students should be trained for emotional intelligence so that they may adjust socially and may achieve a balance between social and personal competence. The correlation between emotional intelligence and academic achievement implies that besides the cognitive factors, non-cognitive factors also affect academic achievement. Emotional intelligence can help the students to handle their test anxieties, control their behaviour and their dealing with the frustrations to overcome their failures. Hence, the students need to be trained for cognitive as well as non- cognitive factors so that they may achieve their academic goals with more consistency and may lead to have better results in academic area.

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