

## **INFLUENCE OF PARENTAL ENCOURAGEMENT ON THE EMOTIONAL MATURITY OF MATHEMATICS STUDENTS**

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### **ABSTRACT**

*Achievement in the subject of mathematics requires special mathematical skills, interests, abilities and attitudes. The performance of the student in the academics and particularly in mathematics depends on hard work, patience and motivation. Parental encouragement act as a catalyst for providing motivation for fulfilling the academic desires and may help the adolescents in becoming emotional stable and mature and vice versa. The present study was conducted to find out the extent of relation that exists between parental encouragement and the emotional maturity of students studying mathematics in the secondary stage. The analysis of data shows that the coefficient of correlation between parental encouragement and emotional maturity “r” is 0.843, which reveals that there is significant positive correlation between parental encouragement and the emotional maturity of the students studying mathematics. The results of the data analysis also show that the t-value between the emotional maturity of mathematics students with higher degree of parental encouragement and emotional maturity of mathematics students with low parental encouragement is 3.99, which is significant at 0.01 level of significance. Therefore, it can be inferred that there is significant difference in emotional maturity of mathematics students with high parental encouragement and those with low parental encouragement.*

**Keywords: Parental Encouragement, Emotional Maturity, Mathematics, Students**

### **Introduction**

Degree of subject's awareness, motivation and parental encouragement act as a dynamic tendency that takes the shape of a strong desire or drive to excel in the academic. Emotional maturity is the acquisition of adaptive behavior that reduces escapes and avoids emotional disturbances of the individual.

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The subject of mathematics is the foundation formost of the disciplinesof study including science and technology. Mathematics as a subject is the backbone of technological development and it plays significant role in determining the strength of workforce in the national growth. There is a greater need to understand and use mathematics in everyday life to prepare the students for life and meet the rising demand of mathematics people at the workplace.Parental involvement in the education of the child takes many forms such as good parenting at home, providinga secure and stable environment at home, holding discussion between parent and child, giving intellectual stimulation,proving constructive model of social and educational values and setting high aspirations for the child for personal fulfillment and developing good citizen, participating in the school programmes, contacting schools for sharing information, participating in the school work and in effective school governance(Desfarges and Abouchaar, 2003).

Parentalencouragement is referred to the treatment given by the parents tothe child with intent to enhance the future occurrences of the good behavior by proper care, showing concern, approval and regular guidance (Sharma, 1988).Parental encouragement is critical in facilitating the development of children, their achievement and helps in preventing problems in acquiring education and in the developmental(Buonagura, 2003).Lawrence andBarathi(2016) found significant correlationbetween the parental encouragement provided to the students and their academic achievement at higher secondary stage.Bashir and Bashir (2016)found positive and significant relationship between the educational aspiration and parental encouragement of secondary students.Arora and Bala(2016) observed insignificant negative correlation between the parental encouragement and social maturity of boys whereas a positive correlation was found between parental encouragement and social maturity of girls.

Emotional maturity is the acquisition of adaptive behavior that reduces escapes and avoids emotional disturbances of the individual.A person is emotionally mature to the extent that he is able to use and enjoy his emotional resources; able to get satisfaction from enjoyable things; able to love and able to experience anger when faced with thwarting that would arouse the temper of any reasonable person; able to accept and to realize the meaning of the fear that arises in him when he faces frightening things, without needing to put a false mask of courage; able to reach out and seek what life might offer, even though to do so means to face the possibility of gain and loss, of enjoyment and of grief.Emotional maturity refers to those behavioral patterns that make for good adjustment in life(Bessel, 2004).

The result of the study on the medical students showed statistically significant and positive correlation ( $r = 0.783$ ,  $p < 0.001$ ) between the emotional maturity of the students and their academic performance (Bhagat, Yasrul, Jayaraj, Husain, Mat, and Aung, 2017). Rai and Khanal (2017) found high positive correlation between the emotional intelligence and academic achievement and also observed no significant correlation between the emotional maturity and the academic achievement of college students. Rajeshwari and Raj (2017) found significant difference in emotional maturity of the students due to varied environmental factors.

Joshi and Sharma (2017) in their study to explore the role parental encouragement of the students on their social maturity found significant difference in social maturity of students having high parental encouragement and those of low parental encouragement. Rawat and Gulati (2018) studied that how the parenting style influences the emotional maturity and social maturity of adolescents and found that parents' styles of communication affect the emotional behaviour. When parents communicate with adolescents respectfully and pay attention to them before abruptly reacting to their behaviour, set rules and expectations which are consistent and also offer them enough opportunities for independence found that the adolescents in these situation prosper and ultimately become emotionally stable.

### **Rationale of the study**

The level of child's academic achievement depends upon the type of environment and encouragement, provided to them by their parents. Nowadays majority of the parents in cities are working and they do not have time to attend their children and find difficulty in focusing even on their academic performance. In case of the illiterate parents the problem of guiding and motivating the child become more severe, as such parents lack sufficient knowledge and could not provide guidance to their children regarding their career, selection of subjects, streams of study etc. and thus the student's academic achievement is affected. Encouragement and motivation by the parents is an important factor which directly or indirectly affects the performance of the children in every sphere.

The rapid development in science and technology is opening the new vistas and new avenues are emerging in the field of work. The kind and modes of education is changing to cater to the needs of the changing trends and job markets. The subject of mathematics is the foundation formost of the disciplines of study including science and technology and is the backbone of technological development. It plays significant role in determining the strength of workforce in the national growth and development. Consequently, new streams are emerging in science and new avenues are appearing in the vocational field which requires multidimensional skills. Certain vocations demand greater level of mathematical abilities and higher emotional maturity for making adjustment in the complexities of the job market.

Parental encouragement is positively correlated with the academic achievement of the students (Lawrence and Barathi, 2016 & Bashir and Bashir, 2016). Similarly emotional maturity is linked to the academic progress of the child (Joshi and Sharma, 2017 & Gulati, 2018). Higher the encouragement provided by the parents there are instance of greater emotional stability and maturity of the students, however the study by Rai and Khanal (2017) pointed out a negative relation between emotional maturity and academic success. Keeping in view the inconsistency and indirect relation between academic achievement, parental engagement and emotional maturity the present study was planned. The main purpose was to see the relation between the parental encouragement of the students studying mathematics and their emotional maturity and also to explore whether there is difference in the emotional maturity of students who were encouraged more by their parents.

#### **Objectives of the study**

1. To study the nature of relation between parental encouragement and emotional maturity of mathematics students
2. To study the difference in the emotional maturity of mathematics students with high and low level of parental encouragement

#### **Hypotheses of the study**

The following null hypotheses were tested in the descriptive study

1. There is no significant correlation between the parental encouragement and emotional maturity of mathematics students
2. There is no significant difference in emotional maturity of mathematics students with high and low level of parental encouragement

**Procedure of the study**

Small number of individuals, objects or events is selected in the sampling process and the data so obtained is analyzed to find out something peculiar about the entire population. In the present field study the population sample consisted of 100 students of mathematics studying at senior secondary stage from the government schools of Chandigarh only. The standardized tools were employed to carry out the study were Emotional Maturity Scale by Singh and Bhargava (1990) and Parental Encouragement Scale (PES) by Sharma (1988).

The tests were administered to the group i.e. mathematics students, after making the subjects acquainted with the purpose of the investigation. The scores of the tests were calculated. The data collected was analyzed by employing the basic and elementary statistical computations namely mean, median, standard deviation etc. for the scores obtained in the two tests viz. Emotional Maturity Scale and Parental Encouragement Scale. Co-efficient of correlation was calculated to see the relationship between emotional maturity and parental encouragement of mathematics students. Comparison was made by applying t-test to know the difference in the emotional maturity of mathematics students with high and low level of parental encouragement.

**Analysis and interpretation of the results**

The data was tabulated and analyzed and hence results are entered into different tables given in the proceeding paragraphs. The calculated values of mean, standard deviation and correlation coefficient are shown in table 1 below.

**Table 1: Relationship between Parental Encouragement and Emotional Maturity of Mathematics students**

Variable	N	Mean	S.D.	Coefficient of correlation	Remarks
Parental Encouragement	100	64.56	10.54	0.843*	Significant at 0.01 level
Emotional Maturity	100	125.91	44.48		

\*Critical Value of  $r = 0.196$  at 0.05 level and  $r = 0.254$  at 0.01 level for  $df = 99$

Table 1 shows that the mean of the parental encouragement scores of sample is 64.56 and the mean score of the emotional maturity of the group is 125.91, whereas the standard deviation of the parental encouragement scores of sample is 10.54 and that of the emotional maturity of the group is 44.48.

The Karl Pearson coefficient of correlation of the mathematics students between the scores of parental encouragement and emotional maturity is observed as 0.843, which is quite greater than the critical value of 0.254 at 0.01 level of significance testing. Thus, the results indicate that correlation between the parental encouragement and emotional maturity students of the mathematics is significant at 0.01 level of significance. This shows that there is a strong positive correlation between the parental encouragement and emotional maturity of the senior secondary stage mathematics students. Hence, the null hypothesis “there is no significant correlation between the parental encouragement and emotional maturity of mathematics students” is rejected. Therefore, the strong relation exists between the parental encouragement and emotional maturity of mathematics students at the secondary stage.

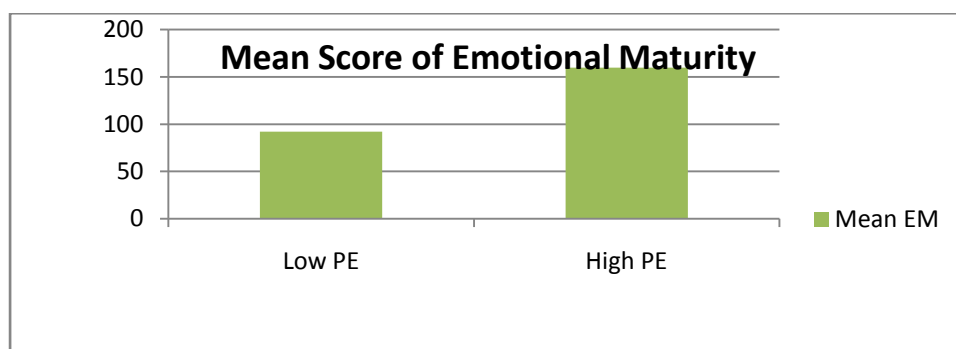
To estimate the difference in the emotional maturity of the mathematics students with low parental encouragement and high parental encouragement, t-test was employed and the result is depicted in table 2 below.

**Table 2: Difference in Emotional Maturity scores of the two groups**

Group	Mean	S.D.	t-value	Level of significance
Low Parental Encouragement	92.0	23.34	3.99*	P<0.001
High Parental Encouragement	159.8	32.52		

\*Critical value of t = 1.96 at 0.05 level and t = 2.58 at 0.01 level for 98 degrees of freedom

Since there is a difference of 67.8 in the mean scores of the emotional maturity of mathematics students with low parental encouragement and high parental encouragement and to visualize this difference a bar graph is plotted and shown in the fig.1 below.



**Figure1. Mean Score of Emotional Maturity of Mathematics students with**

### **Low Parental Encouragement and High Parental Encouragement**

Table 2 and fig.1 shows that the mean score of emotional maturity of mathematics students receiving less parental encouragement is 92.0 whereas the mean score of emotional maturity of mathematics students receiving higher level of parental encouragement is 159.87 and thus a difference in the mean scores of the two groups is 67.8. To check whether this difference in mean scores of the two groups is appreciable or not, t-test was employed and the calculated value as given in table 2 is found to be 3.99. The calculated t- value of 3.99 between the groups is more than table value of 2.58 at 0.01 level of significance. Therefore, the null hypothesis “there is no significant difference in Emotional Maturity of Mathematics students with high and low level of parental encouragement” is rejected. Hence, the difference of 67.8 in the mean scores between the two groups is significant at 0.01 level of significance.

### **Findings and conclusion**

The coefficient of correlation between the scores of parental encouragement and emotional maturity of the mathematics students is calculated as 0.843, which is more than the table value of 0.254 at 0.01 level of significance testing. Thus, there is a strong positive correlation between the parental encouragement and emotional maturity of the senior secondary stage mathematics students.

Hence, the null hypothesis “there is no significant correlation between the parental encouragement and emotional maturity of mathematics students” is rejected. This implies that the correlation between the parental encouragement and emotional maturity of mathematics students is strongly positive and significant.

The calculated t- value of 3.99 between the two groups i.e. low parental encouragement group and high parental encouragement group is even more than that of the table value of 2.58 at 0.01 level of significance. Hence the null hypothesis “there is no significant difference in Emotional Maturity of Mathematics students with high and low level of parental encouragement” is rejected. This implies that the difference in the mean scores of emotional maturity of mathematics students with low parental encouragement and high parental encouragement is significant.

The study indicates that a strong relationship between parental encouragement and emotional maturity of the students at secondary stage. It is also inferred from the study that there is significant difference in the emotional maturity of the secondary stage students who got higher level of parental encouragement and those who are deprived or received lower



level of parental encouragement. Therefore, parental encouragement has a significant bearing on the emotional maturity and emotional behaviour of the child.

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