

Influence of Home Environment and Emotional Intelligence on Critical Thinking of Adolescents: A Reflective avenue of study

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Abstract: We live in the age of 21st century where we have more information and opportunity to communicate with people across the globe. But how do we discern what information is correct depends upon our thinking ability. Therefore, one of the important goals of education is to nurture critical thinking skills among the students. From the review of researches, it is concluded that critical thinking can predict academic success better than traditional measures of cognitive intelligence. Therefore, the present study aims to examine the critical thinking of adolescents with the help of independent variables i.e. Home environment and Emotional intelligence. The sample of the study was 376 students studying in class XI of both government and private schools at Allahabad district. The standardized tools 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. The results of the study revealed that there is a significant relationship between home environment and critical thinking. It was also observed that most of the components of emotional intelligence correlated highly with critical thinking. The results of multiple regression analysis indicated that home environment and emotional intelligence was the strongest predictor of critical thinking. The findings imply that learners who are emotionally intelligent and critical thinkers, more capable in decision-making ability.

Key Words: Home environment; Emotional intelligence; Critical thinking; Adolescents.

“The essence of the independent mind lies not in what it thinks, but in how it thinks.”

– Christopher Hitchens

1. INTRODUCTION:

One of the most significant objectives of educational system is the overall development of the child which includes their interests, attitudes and the way of thinking. Despite differences of views, the primary concern of education is to develop the thinking ability of learners. The elementary education of a child starts in the family where the first educators are the parents. Thus, the home environment is crucial for the children's achievements. It impacts during the child's early years and continues throughout their life. Parents play a vital role in providing support to the children's learning. The experiences of parents can improve the thinking ability of children by arousing their interest and curiosity. In order to satisfy such demands, it is equally important to develop their emotions. During infancy children try to recognize the emotions. Family is the first environment where child feels, observes and learns the emotional relationships (Warhol, 1998). Children understand the emotions through attachment and modeling with parents (Denham et al, 2000; Ontai and Thompson, 2002; Raikes and Thompson, 2006). Emotional skills are important throughout the children's life to face the challenges. The way children identify and manage their emotions form a major impact on their academic performance. Emotional intelligence helps to identify, control and express the emotions of children so as to make the decisions. This makes them self-motivated and more confident learners. According to Goleman (1995), Emotional intelligence can predict academic success better than traditional measures of intelligence. Emotional intelligence is 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). Emotional intelligence is an outgrowth of two areas of psychological research. The first area is cognition and affect that involve how cognitive and emotional processes interact to enhance thinking (Bower, 1981; Isen, Shalcker, Clark and Karp, 1978). Emotions like anger, happiness, fear and mood states influence how people think, make decisions and perform different tasks (Forgas and Moylan, 1987; Mayer and Bremer, 1985; Salovey and Birnbaum, 1989). The second one was an evolution in models of intelligence itself. It considers intelligence as how well one engaged in analytic tasks associated with memory, reasoning, judgement, abstract thoughts and as a broader array of mental abilities (Cantor and Kihlstrom, 1987; Gardner, 1983; Sternberg, 1985).

It has been noticed that alarming statements have been issued repeatedly in the educational literature about importance of home environment and emotional intelligence for holistic development of personality of adolescents. Linking emotions and intelligence was relatively novel when first introduced in a theoretical model about twenty years

ago (Salovey and Mayer, 1990). Thus, home environment is the most important factor for emotional development. Emotions are central to the process of rational thought and the key element in decision making. The way how students control and regulate the emotions determine their success in any given situation. The process of thinking starts right from the process of observation, analysis, synthesis and evaluation. So, thinking has to be as precise as possible and also it should not be affected by any extraneous elements or phenomena. Elder and Paul (1997) contends that it is critical thinking which leads us to a rational and reasonable emotional life. Critical thinking skill is the ability to think critically and rationally about what to do and what to believe that enables the learners to perform better. Education seeks to prepare learners for self-direction. Therefore, it is essential that learners be prepared for thinking their way through the mesh of challenges that life will present independently. Barsade (1998) stated that the individuals with high level of Emotional intelligence manage their emotions in a better way during stressful situations and are good decision makers. Thus, the ability to understand emotions and incorporate them into critical thinking process is a valuable asset to students' decision-making abilities. It is believed that parental involvement engaging students emotionally strengthen their thinking and reasoning ability. Athota, Connor and Jackson (2009) in their study found Emotional intelligence to be a significant predictor of reasoning and critical thinking ability. Murugan and Thilaghavathy (2011) inferred that a positive relationship exists between home environment and reasoning ability. Bandhana and Sharma (2012) revealed that the students with high home environment have higher level of thinking and reasoning ability in comparison to one's having low home environment. Nurturing critical thinking is one of the most important processes during adolescence. Thus, by linking the parental involvement, Emotional intelligence and Critical thinking approach, students can better understand how they learn to improve intellectual skills. It would enable students to succeed in academics for better career options and to achieve their ambitions.

2. OBJECTIVES:

- To study the level of Home environment, Emotional intelligence and Critical thinking among adolescence students at higher secondary level of education.
- To compare male and female students with respect to Home environment, Emotional intelligence and Critical thinking.
- To study the relationship among the Home environment, Emotional intelligence and Critical thinking of adolescence students at higher secondary level of education.
- To find out the predictive value of Home environment and Emotional intelligence on the Critical thinking of adolescents.

3. HYPOTHESIS

- There is no significant difference in the Home environment, Emotional intelligence and Critical thinking of male and female adolescents.
- There is no significant correlation among the Home environment, Emotional intelligence and Critical thinking of adolescents.
- Home environment and Emotional intelligence do not contribute to prediction of Critical thinking of adolescents.

4. METHODOLOGY:

- Sample:** In accordance with objectives of the present study, a sample of 376 (190 males and 186 females) students of class XI studying in CBSE affiliated schools in Allahabad city was selected by stratified random sampling.
- Tool selected for the study:** The standardized tools 'Home Environment Inventory' developed by K.S. Misra, 'Emotional Intelligence Inventory' developed by Mangal and Mangal and 'Critical Thinking Test' constructed by researcher has been used as a measure of Home Environment, Emotional intelligence and Critical Thinking of students.
- Statistical techniques used:** Keeping in view of the objectives and hypotheses formulated for the study, t-test was applied in order to compare Home Environment, Emotional intelligence and Critical thinking of male and female students. To find the relationship among variables and to predict the Critical thinking of students, Product Moment Correlation was used. Stepwise method of Multiple Regression analysis technique was employed by Statistical Package for Social Sciences (SPSS) 20.0 version.

5. ANALYSIS OF DATA AND INTERPRETATION:

OBJECTIVE -1

To study the level of Home environment, Emotional intelligence and Critical thinking among students at higher secondary level of education.

Table: 1
Distribution of Home Environment scores

Group	N	Mean	SD	Skewness	Kurtosis
Male	190	65.32	13.542	.421	.857
Female	186	68.74	12.391	.650	-.169
Total	376	67.03	12.97	.509	.62

The Mean Home environment score of the total sample as revealed from Table 1 was 67.03 with SD 12.97. Mean Home environment score for Male adolescents was found to be 65.32 and for female adolescents was 68.74. The mean score of Home environment for all the three groups under study falls in the positive category as per the manual. The value for skewness (.509) indicates positive skewness of the distribution and it is closer to the normal value of zero.

Table: 2
Distribution of Emotional intelligence scores

Group	N	Mean	SD	Skewness	Kurtosis
Male	190	68.71	16.27	-.034	-0.36
Female	186	69.26	16.53	.018	1.486
Total	376	68.99	16.39	-.069	.54

It is revealed from table 2 that Mean Emotional Intelligence score of the total sample of 376 students was 68.99 with SD 16.39. Male students (M= 68.71) had lower mean score than female students (M= 69.26). 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: 3
Distribution of Critical thinking scores

Group	N	Mean	SD	Skewness	Kurtosis
Male	190	70.96	13.865	.314	-1.48
Female	186	72.31	11.772	.302	-.926
Total	376	71.89	12.82	.304	-0.91

The table 3 reflects that Mean score of Critical thinking was observed to be 71.89 with SD 12.82. Mean Critical thinking score for female adolescents (72.31) was slightly higher from their male counterparts (M=70.96). 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. It reflects that the distribution of scores for the total sample is fairly normal.

OBJECTIVE- 2

To compare male and female students with respect to Home environment, Emotional intelligence and Critical thinking.

Table: 4
Comparison of Emotional Intelligence of Male and Female Adolescents

Dimensions	Male (N= 190)		Female (N= 186)		t-value
	Mean	SD	Mean	SD	
Inter personal Awareness	14.97	3.781	15.24	3.899	.849
Intra personal Awareness	15.58	3.609	15.97	3.712	1.492
Inter personal Management	14.86	3.734	15.12	3.481	2.136*

Intra personal Management	15.52	3.469	16.08	3.79	1.032
Emotional Intelligence Total	59.72	11.351	62.41	10.62	2.298**

* Significant at .05 level

** Significant at .01 level

The above table reveals that the mean scores of male and female adolescents were 15.58 and 15.97 respectively on Intrapersonal Awareness. The 't' value (1.492, $p > .01$) obtained indicates that no significant difference exists between the said groups on Intrapersonal Awareness. The t-value of .849 and 1.032 were found non-significant at .05 level. It indicates that male and female students have no significant difference for Interpersonal Awareness and Intrapersonal Management. Significant difference was observed on the dimension of Interpersonal Management (t value= 2.936, $p < .05$) with male adolescents having a mean score of 14.86 and female adolescents with a mean score of 15.12. From the table, it is also clear that the calculated t-value was 2.298 which was significant at 0.01 level on the measure of total Emotional intelligence. Hence, null hypothesis was rejected. It shows that there was a significant difference between male and female. Results are in favour of female adolescents with the high Emotional intelligence.

Table: 5
Comparison of Home environment and Critical thinking of Male and Female adolescents

Variables	Male (N= 190)		Female (N= 186)		t-value
	Mean	SD	Mean	SD	
Home Environment	68.24	17.36	69.13	16.98	.501
Critical Thinking	71.48	15.85	72.59	12.63	.982

From the above Table 5 it is clear that mean score of male adolescents on Home environment was 68.24 slightly lower than the mean score of female adolescents (M= 69.13). However the t- value of .501 was found insignificant at .05 level. It is also clear from the table that male adolescents obtained a mean score of 71.48 on Critical Thinking and female adolescents obtained mean score of 72.59. The computed t-value was .982 on Critical thinking which was found insignificant at 0.05 level ($p > .05$). This indicates that male and female adolescents do not differ in their Critical thinking. Thus, null hypothesis was accepted in both the cases.

OBJECTIVE- 3

To study the relationship among the Home environment, Emotional intelligence and Critical thinking of adolescence students at higher secondary level.

Table: 6
Correlation Matrix of Home environment, Emotional intelligence and Critical thinking

Variables	Home environment (HE)	Emotional intelligence (EI)	Critical thinking (CT)
HI	1	.312**	.376**
EI		1	.394**
CT			1

** Significant at .01 level

Table 6 shows the significant positive correlation of Home environment with Emotional intelligence (.312) and Critical thinking (.376) at .01 level. Similarly, Emotional intelligence is correlated to Critical thinking ($r = .394$). Null hypothesis was rejected in all the above cases.

OBJECTIVE- 4

To find out the predictive value of Home environment and Emotional intelligence on the Critical thinking of adolescents.

Table: 7
Determinants (HE and EI) of Critical thinking for Total sample

Variables	R	R ²	R ² change	Beta	Regression coefficient	F
HE	.364	.153	.154	.368	.274	49.36**
EI	.425	.178	.082	.291	.210	37.142**

**Significant at .01 level

Table 7 shows the results of Stepwise method of Multiple Regression analysis. It indicates that on adding Home Environment (HE) and Emotional Intelligence (EI), 'F' ratio was found significant at .01 level. The percentage of variance explained by Home Environment alone is 15.4% and Emotional Intelligence contributes 8.2% variance in Critical thinking. Home Environment together with Emotional Intelligence accounts to 17.8% variance in Critical thinking.

6. FINDINGS AND CONCLUSION:

The present study is a humble attempt to understand the role of Home environment and Emotional intelligence as determinants of Critical thinking among adolescents. The findings of the present study show the Home Environment and Emotional Intelligence as strong predictors of Critical thinking of adolescents. Findings are in favour of Sutarso (1999) and Nara (2014) study indicates the gender difference exists among adolescents as far as their Emotional intelligence is concerned. Female students have better interpersonal management skills when compared to their male counterparts. Results are in favour of Razia and Ahmad (2017) study and reveal that the Interpersonal management skills of students are important for maintaining healthy relationships with peer groups and teachers in the classroom. Maintaining healthy classroom environment contributes to better learning atmosphere. It was observed that gender differences exist in interpersonal management skill dimension of Emotional intelligence. However there no gender differences were found on EI dimensions like Interpersonal Awareness, Intrapersonal Awareness and Intrapersonal management skills. There is no difference among Adolescents by gender on the measure of Home environment and Critical thinking. Emotional Intelligence was found to be significantly correlated with Critical thinking.

Similar to the studies conducted by Marquez et al (2006) and Jatinder (2014), Emotional Intelligence was also correlated with Home environment endorse with the results of Agnihotri and Donde (2014); Razia and Ahmad (2017) who observed significant correlation among the same variables in both the gender. The results also indicate that overall Home environment and Emotional Intelligence of students are the significant predictors of Critical thinking in line with the findings Naik and Shukla (2018). Home environment together with Emotional Intelligence contributes to 17.8%% variance in Critical thinking with Home environment emerged at the top with 15.4 % variance in Critical thinking. Thus, the study suggests that due consideration should be given in home and schools to the affective aspect of intelligence of students in order to improve their academic performance. Since, Adolescence is the period of age with a state of anxiety, stress and confusion. Therefore, it becomes more important to equip them with emotional and social skills. On the basis of these findings we may conclude that academic stressors and home environment create the students with low emotional intelligence that in turn effect on their critical thinking ability. Thus, it ought to be an explicit educational goal to develop the coping capacity among students so that they may learn to think critically by being emotionally intelligent. It becomes vital that family and schools should approach the students by providing conducive learning environment, assisting them to acquire better study strategies and motivating them to achieve higher grades. Different teaching techniques can help the students for better retention process to improve their problem-solving ability.

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