

Effect Of Home Environment On Critical Thinking Of Students

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Abstract:

The present study was designed to explore the association Home environment of students have with their Critical thinking among school students. The sample of the study comprised of male and female students studying in class X or high school students from schools in Prayagraj city. The objectives of the study were as follows: (1) To find out the aspects of critical thinking among high school students (2) To analyze the effect of home environment on critical thinking of high school students. High school students with high, moderate and low overall home environment differ from one another in Critical Thinking. Although there was a very little difference in mean of moderate and low, it can be interpreted that high home environment of high school students were found to be better in Critical Thinking, low and moderate home environment of high school students. Better the home environment provided by parents was associated with better Critical Thinking among especially in male students.

Keywords: Home Environment, Critical Thinking, high school students, Low High Moderate Home Environment

Introduction

Critical thinking is the potential skill to objectively evaluate the available information and extract sensible and logical inferences to fit the related scenario. The process of critical thinking also require accumulating details of information on any given matter thereby analyzing and evaluating the applicability of information from a range of available information related with the matter which is a form of deductive reasoning. Talking about home, Collins states that a home is a place where all the members of the family including children, parents or guardians stay together. Environment may be defined as an agglomeration of all conditions, both within the family and outside which affects the subsistence, growth and wellbeing of a family member. After genetic predisposition, home environment is the factor where a person is in contact with. Anene,2005. Along with other basic aspects of development in children like learning and personality, critical thinking is significantly affected by home environment of children. Home environment is created in constant interaction of children with their parents or guardians therefore it can be said that parents play a vital role in creating positive or negative home environment influencing thinking ability or skill of students. The four types of thinking abilities are convergent or analytical thinking, divergent thinking, critical thinking and creative thinking. These thinking skills are used by students to assist them to perceive and interpret their own surroundings, conditions and situations. They are able to think critically, solve problems by making logical and pragmatic approach and internalize the moral values social beliefs for future life. According to Finn in 1998, the family members participate in activities involving reading together, playing together, discussing children's school-related tasks and coordinating and moderating children's fun time at home thereby cognitively stimulate the students.

According to Meece, 2002, Home environment is the most vital and requisite need in initiation and growth of critical thinking. Home environment which is well responsive, supporting, encouraging, and explorative, stimulates curiosity of students provided through informational, and educative substances which facilitate intellectual growth. Along with basic needs, parents make efforts providing safe and well built environment, cognitively enhancing environment, better interactive social perspective and educational values and high aspirations related to personal fulfillment.

It is difficult for parents who stay away from their children to keep under observation their educational needs so that they can achieve success in school, Jeynes, (2007). Constant conversation of parents with their children regarding the necessities of schooling can influence their perception and expectations as a student. These types of interactions and conversations in reference to school communicate the importance education to students, Sheldon & Epstein, (2005). Negative approaches like parental over possessiveness, authoritarian attitude, neglect, retribution and strict disciplining can have a negative impact on student's education.

The chapter encompasses an association of Home environment with Critical thinking among high school students. The sample comprised of both male and female students studying in class 10th in schools of Prayagraj city. By applying the table of random numbers to the list of schools functioning in the district of Prayagraj the researcher selected four schools of the U.P. Board, out of which two were boys' and two were girls' schools and four co-educational schools of the C.B.S.E. Board. Hence, stratified sampling has been used to select the sample for this study.

Objectives:

1. To find out the aspects of critical thinking among male and female high school students
2. To analyze the effect of home Environment on critical thinking among high school students

Hypotheses:

1. High, moderate low level of home environment would significantly affect Critical Thinking of high school students
2. High, moderate low level of home environment would significantly affect Critical Thinking of high school male students
3. High, moderate low level of home environment would significantly affect Critical Thinking of high school female students

Method

Descriptive survey design was applied by the researcher to attain the main objectives of the study. Data was gathered by the researcher from the school students within a period of one month. The target population was secondary school students. Two tests were used to meet the objectives of the study.

- Home Environment Inventory created by Professor Karuna Shankar Mishra was applied to find out home environment of the high school students.
- Cornell Critical Thinking Test (CCTT): For the purpose of the study, Cornell Critical Thinking Test was used by the researcher. The test can be applied to students from 5th to 12th class, as well as adults. It assesses skills such as inductive, deductive, credibility, presumptions or hypothesis, and definition of terms. The test consisted of 71 items and takes about 50 minutes to complete.

Results

Table No 1 Mean and SD in the Critical Thinking of high, moderate and low overall Home Environment of Secondary School Students N=500

Overall Home Environment	Levels	Critical Thinking	
		Mean	SD
	High	36.87	18.16
	Moderate	36.72	18.14
	Low	31.27	17.89

The above table shows that the mean scores in critical thinking of high, moderate and low overall home environment of secondary school students. High, moderate and low overall home environment mean scores are 31.27, 36.72 and 36.87 with S.D.'s 17.89, 18.44 and 18.16 respectively. Since the mean score of low home environment of secondary students is 36.87 which is higher than mean score of high and moderate home environment of secondary school students. Although there is a very little difference in mean of moderate and low, it can be interpreted that high home environment was associated with better Critical Thinking whereas low and moderate home environment was lesser. In reference to the above findings, Bloom in 2001, asserts about the home environment created by parents it is what parents do in the home that may be reported for progress of academic in children. It can be seen that low and moderate home environment may negatively affect children's academic achievement due to absence of motivating and encouraging atmosphere in home.

Table No. 2 Summary of results of ANOVA showing difference in the Critical Thinking of overall Home Environment of Secondary School Students

Overall Home Environment	Variation	Critical Thinking			
		Sum of Squares	df	Mean Square	F-value
	Between Groups	2262.37	2.00	1131.18	3.371*
	Within Groups	166764.87	497.00	335.54	

* F value is significant at 0.05 level

The above tabular presentation displays the calculated F value of overall home environment on the Critical Thinking of students. The obtained F value is 3.371, which is significant. Hence the hypothesis “High, moderate low level of home environment would significantly affect Critical Thinking of high school students is accepted. Hence it can be interpreted overall home environment has a significant effect on Critical Thinking of high school students. It is expected that parents are actively involved in enhancing the learning prospects in order is to develop critical thinking in children. The overall environment condition embedded in parental planning and interaction is need of the time.

Table No. 3 Mean and SD in the Critical Thinking of overall home environment of secondary school male students N=250

Overall Home Environment	Levels	Critical Thinking	
		Mean	SD
	High	36.85	19.45
	Moderate	32.29	17.81
	Low	0.00	0.00

The above table shows that the mean scores in the Critical Thinking of high, moderate and low overall home environment of male students. High, moderate and low overall home environment mean scores are 32.29, 36.85 and 0.00 with S.D.’s 17.81, 19.45 and 0.00 respectively. Since the mean score of high home environment of secondary school male students is 36.85 which is higher than mean score of moderate and low home environment male students. So it can be interpreted that high level of home environment of high school male students have better Critical Thinking than moderate and low home environment of male students. Therefore the better the home environment provided by parents the better for Critical Thinking among male students. Osunloye in the year 2008 concluded that student’s academic performance and resulting achievement may speed up or inhibit depending upon the atmosphere provided by parents at home. The continuous interaction of students with their parents and siblings because they are in proximity, significantly influences the student’s performance in school. There is a significant relationship between family and educational attainment, Johnson 2002. Students are better at adjustment if the environment they live in inculcates qualities like support, love, and approval. It encourages students to practice skills taught at school.

Table No. 4. Annova Showing Difference in the Critical Thinking of high, moderate and low overall Home Environment of Secondary School Male Students

Overall Home Environment	Variation	Critical Thinking			
		Sum of Squares	df	Mean Square	F-value
	Between Groups	1028.25	1	1028.25	2.843
	Within Groups	89711.11	248	361.74	

The table shows obtained F value of levels of overall home environment in the Critical Thinking male students. The obtained F value is 2.843, which is not significant. Hence, there exists no significant difference among high, moderate and low overall home environment of secondary school male students. “There is no significant difference in the critical thinking of high, moderate and low overall home environment of high school male students” is accepted. Hence, is interpreted that male students with high, moderate and low overall home environment have equal in the Critical Thinking. Understandably balance Home Environment is a key to student’s explorative abilities which he/she experiences within the margins of concrete construction and love and compassion. Within the edifice of an emotional and accepting environment critical thinking is fostered and enhanced. Parents may establish norms and guidelines and expect their children to follow them and also support them by providing space and scope to learn freely. Some qualities that could be enforced are ability to realize the connection between views and ideas, consider the significance and magnitude of altercation and views, thereby building confidence to assess and estimate arguments.

Table No. 5. Mean and SD in the Critical Thinking of High, Moderate and Low overall Home Environment of Secondary School Female Students N=250

Overall Home Environment	Levels	Critical Thinking.	
		Mean	SD
	High	28.48	18.17
	Moderate	36.59	17.45
Low	36.87	18.16	

The above table shows that the mean scores in the Critical Thinking of high, moderate and low overall home environment of secondary school female students. High, moderate and low overall home environment mean scores are 28.48, 36.59 and 36.87 with S.D.'s 18.17, 17.45 and 18.16 respectively. Since the mean score of low home environment of high school female students is 36.87 which is higher than mean score of high and moderate home environment of female students. Therefore, it can be concluded that low home environment of female students is associated with better Critical Thinking than high and moderate home environment of secondary school female students.

Table No 6. ANOVA showing difference in the Critical Thinking of high, moderate and low overall Home Environment of Secondary School female Students

Overall Home Environment	Variation	Critical Thinking.			
		Sum of Squares	df	Mean Square	F-value
	Between Groups	1500.56	2	750.28	4.414
Within Groups	76781.69	247	310.86		

Table shows obtained F value of high, moderate and low overall home environment in the Critical Thinking of female students. The obtained F value is 4.414, which is significant. Hence, there exists a significant difference among high, moderate and low overall home environment. It can be interpreted that female students with high, moderate and low overall home environment have different levels of Critical Thinking. Good critical thinker, whether male or female are able to think in varied dimensions, for example, cognitive skills and presentation through deliberating, reflecting, and logic thinking and behaviour in demanding conditions. Dilley, A., (2015) reflects upon Dewey's research on critical thinking "how we think" in 1910. Hence, as Parents one can provide better environment for critical thinking including interpretation, analysis, inference, deduction, and evaluation as is proved from the above result.

Conclusion:

- Thinking is one of the most important cognitive processes or skill which is related with many physical and mental activities. Critical Thinking skills like problem solving, rationality, objectivity, knowledge, stance exploration and search for evidence are developed and enhanced as a result of good home environment.
- Other cognitive skills like comprehension, application, analysis, synthesis, and evaluation are pre requisite for academic achievement and overall development of students.
- Basically, critical thinking involves the capacity to logically reason. Actively participating in the process and development of learning and growth with the help of better home environment suggests the relationship between two variables.
- Students with good critical thinking are more curious and inquisitive about ideas and hypotheses and not rely only on apparent value. It is one of the very important characteristics for students because it is responsible for developing a scientific temperament.
- The ability to think critically especially in students helps them to evaluate situations and act comprehensively to overcome the problems; instead of depending on anticipation or impulse.
- Students also often seek guidance from their parents for daily activities which helps in developing critical thinking skills. A better home Environment might be a good base of encourage where they can engage in better cognitive functioning.
- There is a cause effect relationship between critical thinking and home environment of students.

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