

A Study of Home Environment in relation to Scientific Attitude, Study Habits and Emotional Maturity of Adolescents

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ABSTRACT

The Present investigation was to find out the relationship of home environment with scientific attitude, study habits and emotional maturity of 600 rural and urban- Punjab and Haryana adolescents. Survey method of investigation was employed. The findings of the study showed that insignificant correlation is there between scientific attitude and home environment of rural as well as urban adolescents. Also insignificant correlation was obtained between study habits and home environment of rural as well as urban adolescents. Insignificant correlation was also obtained between emotional maturity and home environment of rural as well as urban adolescents.

Keywords: *Home Environment, Scientific Attitude, Study Habits, Emotional Maturity*

Right from the beginning a child acts with curiosity to know about the things around him. A distinguishing feature of human beings is the passion to have an understanding of this world. That passion has created science. Without science, we would not have understood the answers to questions like why night follows day and why solar eclipse occurs and so on. The inventions and discoveries have changed the face of life on earth. Not only the way of living has been revolutionized but attitudes, curiosities and interest of society have also undergone change and this has created the importance of scientific attitude in our lives. Today, a man is not only incomplete but also handicapped without a scientific attitude in his life. Thus there arises a dire need to develop scientific Attitude among the adolescents. Various efforts should be done to develop scientific attitude in the adolescents from the very beginning.

Also these days the pressure of studies is increasing on the students due to the ever speeding progress of science. This has created a need for the children to develop good study habits in their lives to cope up with the vast increasing knowledge of the world. Sound study habits economize energy, time and reduce fatigue. It simplifies the system involved in learning and

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ensures accuracy in them. The knowledge of study habits to the teachers and the parents is perhaps the prerequisite to work effectively in building new interests and helping to motivate children to learn everything effectively.

In the present circumstances, youth as well as children are facing difficulties in life due to the speedy changing in the world of relations, studies and work. These difficulties are giving rise to many psychosomatic problems such as anxiety, tension, frustration and emotional upsets in day to day life. So the study of emotional life is now emerging as a descriptive science. Comparable with anatomy, it deals with an inter play of forces with intensities and quantities. Therefore there is a real need to bring emotional maturity among the adolescents who have maximum stress and storms in their life. Parents and home environment have an incomparable impact on the emotional maturity of the child.

Home plays a very important role in the life of a person. Home environment is the aggregate of the various factors and stimulations which the individual receives from conception till birth. It is the most important unit of the society. It plays the most important role in the development of the child. Home environment plays a pivotal role in the development of right attitude including scientific attitude, habits formation including study habits and balances maturity level which also includes emotional maturity.

Due to this the present study was focused on exploring the effect of Home Environment on Scientific Attitude, Study Habits and emotional maturity of adolescents. The study would not only add to the body of knowledge related to the importance of Home Environment, but will also provide a great help to psychologists, educationists, parents and counselors for effective handling of the adolescents. These findings will be of great significance and help to the general public and adolescents and bring out the awareness and importance of Home Environment in the modern world. These findings will also help to lay stress on Home Environment conditions while deciding the school curriculum.

Yeung, W.J. (2009) found a significant difference between the home environment of white and black races and this also affects the achievement scores of the children. Beideinger, N. (2010) found that Home environment and Family Background play very important role in the development of cognitive abilities of children and their improvement in results. Rani, R. (2013) in her study found that there is no significant difference between the home environment of boys and girls studying in science stream of senior secondary schools. Erinoshio (2008) noted that Nigerian girls are less interested in science subject and this influences their scientific attitude as compared to boys. Olasehinde (2008) found that the cause behind the low scientific attitude among students is the low enrolment in science in secondary school students. Raimi & Oduwaye (2011) found that males' better performance in integrated science cognitive achievement is due to their high scientific attitude as compare to females. Amjad & Muhammad (2012) found that the most important factor in teaching of science is the attitude towards science which affects the behavior of an individual.

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Olasehinde & Olatoye (2014) found that scientific attitude and attitude towards science differ from each other and both have no role in the prediction of achievement in science among secondary school students. Rama, S. & Kausar, R. (2011) found that many students fail in their studies, not due to the lack of ability, but because they do not have adequate study habits. Singh, Y. (2011) studied the academic achievement in relation to study habits of higher secondary school students and found a positive relationship between them.

Basher, I. & Mattoo, M. (2012) found a significant relationship between study habits and academic performance of adolescents.

Chaudhary, N.K. (2013) showed that there exists a significant relationship between study habits and academic achievement of general and scheduled caste students. Also, there exists a significant difference between the study habits and academic achievement of general and scheduled caste students. Mendezabal, M. (2013) found that unfavourable study habits and low attitude of the students contribute to their low performance in exams. Kaur, M. (2013) made a study on a comparative study of emotional maturity of senior secondary school students. In his study he investigated the emotional maturity of adolescents of Chandigarh. He conducted on a group of 200 students, 100 boys and 100 girls from govt. and private senior secondary schools of Chandigarh. The findings of the study revealed that there was not any significant difference in various areas of emotional maturity of govt. and private school students; no significant difference was found in the emotional maturity level of boys and girls of senior secondary schools of Chandigarh.

Dutta, J. et al. (2014) conducted a study on “A Comparative Study of Delinquency Prone and Non- Delinquency Prone Adolescents with regards to Self- Concept, Emotional Maturity and Academic Achievement in Assam”. The study reported that delinquency prone adolescents have low self-concept, low emotional maturity and poor academic achievement than that of non-delinquency prone adolescents. Further, the study showed the positive co-relation among self-concept, emotional maturity and academic achievement.

METHODOLOGY

The present study is a survey type in nature. Here the data has been collected personally from the students. The method applied is of descriptive type. Purposive sampling method was used to select the schools.

Sample

A sample of 600 adolescents - 300 rural (150 haryana and 150 punjab) and 300 urban (150 haryana and 150 punjab) was selected randomly from 24 government schools of Gurgaon, Rohtak and Panchkula districts of Haryana state and Ludhiana, Mohali and Amritsar districts of Punjab state.

Objectives

1. To study the relationship between Scientific Attitude and Home Environment of rural

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adolescents.

1. To study the relationship between Scientific Attitude and Home Environment of urban adolescents.
2. To study the relationship between Study Habits and Home Environment of rural adolescents.
3. To study the relationship between Study Habits and Home Environment of urban adolescents.
4. To study the relationship between Emotional Maturity and Home Environment of rural adolescents.
5. To study the relationship between Emotional Maturity and Home Environment of urban adolescents.

Hypotheses

1. There exists a significant relationship between Scientific Attitude and Home Environment of rural adolescents.
2. There exists a significant relationship between Scientific Attitude and Home Environment of urban adolescents.
3. There exists a significant relationship between Study Habits and Home Environment of rural adolescents.
4. There exists a significant relationship between Study Habits and Home Environment of urban adolescents.
5. There exists a significant relationship between Emotional Maturity and Home Environment of rural adolescents.
6. There exists a significant relationship between Emotional Maturity and Home Environment of urban adolescents.

Tools

1. Home Environment Scale by Akhtar & Saxena (2013)

This instrument is designed to measure the psychological climate of home as perceived by children. It provides the measure of the quality of cognitive, emotional and social support that has been available to the child in the home. The present scale has 50 items belonging to 10 dimensions of the home environment. There are five cells against each item of the inventory. Each cell indicates the frequency of occurrence of a particular behaviour. The five cells belong to the five responses namely 'always', 'often', 'sometimes', 'least' and 'never'. 4 marks are assigned to 'always', 3 marks to 'often', 2 marks to 'sometimes', 1 mark to 'least' and 0 mark to 'never' responses for positive items. The scoring is reverse for negative items i.e. 0 for 'always', 1 to 'often', 2 to 'sometimes', 3 to 'least' and 4 to 'never'. The scores were added to get the net score.

2. Scientific Attitude Scale by Kaur (2002)

The Scientific Attitude Scale was constructed by Kaur (2002). The scale comprises of 61 items categorized under 9 components namely curiosity, open-mindedness, faith in scientific

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method, cause and effect relationship, critical mindedness, seeks evidence, objectivity, suspended judgment and aversion to superstition.

The responses given by the students are classified separately for each statement, into five categories of responses used in the scale. These five points are qualified by giving a score ranging from 1 for strongly disagree to 5 for strongly agree for positive statements. The other categories of responses such as disagree, undecided, agree are given 2, 3 and 4 scores respectively. The procedure of scoring for negative statements is reversed. Negative statements are given scores of 1, 2, 3, 4 and 5 for strongly agree, undecided, disagree and strongly disagree responses. After noting down the frequency of responses in each category for each statement, scale values for a particular item is calculated by multiplying the scores obtained with the corresponding value as given in manual.

3. Study Habit Inventory by Lajwanti, Chandel & Paliwal (2013)

Study habit Inventory has been designed to study the study habits of higher secondary Students. This is a paper pencil test. The test consists of 40 items related to different dimensions of study habits. There is no time limit to complete this test but approximately it takes 30 to 35 minutes to answer it. The procedure of scoring is quite simple. There are 5 points for each of the item. There are two types of the items: Negative and Positive. The scores for each of the rating point in case of negative and positive items are given in the manual.

4. Emotional maturity Scale by Yashvir & Bhargava (1990)

Emotional maturity scale prepared by Singh and Bhargava (1999) was used to measure emotional maturity. Emotional maturity scale deals with interplay of forces with intensities and quantities in terms of different aspects of emotionality.

Emotional maturity scale has a total of 48 items and is a self-reporting five-point scale. Items of the scale are in question form demanding information for each in any of the five options mentioned below: "Very much, much, undecided, probably, never" The items are so stated that if the answer is in positive say very much, a score of five is given; for much 4, for undecided 3, for probably 2 and for never a score of 1 is to be awarded. Therefore, higher the score on the scale, greater is the degree of the emotional immaturity and vice-versa.

RESULTS AND DISCUSSIONS

The values of coefficient of correlation between scientific attitude and home environment of rural and urban adolescents have been presented in tables 1 and 2.

Table 1 showing value of coefficient of correlation between scientific attitude and home environment of rural adolescents (N=300)

Sr. No.	Variables	'r' value	Significance
1	Scientific Attitude and Home environment	-0.075	Insignificant

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Scientific attitude was found to be insignificantly negatively correlated with home environment of rural adolescents. The value of coefficient of correlation is -0.075.

Therefore, hypothesis no. 1 i.e. there exists a significant relationship between scientific attitude and home environment of rural adolescents, is rejected.

Table 2: showing value of coefficient of correlation between scientific attitude and home environment of urban adolescents (N=300).

Sr. No.	Variables	'r' value	significance
1	Scientific Attitude and Home environment	0.134	Insignificant

Scientific attitude was found to be insignificantly positively correlated with home environment of urban adolescents. The value of coefficient of correlation is 0.134.

Therefore, hypothesis no. 2 i.e. there exists a significant relationship between scientific attitude and home environment of urban adolescents, is rejected.

The values of coefficient of correlation between study habits and home environment of rural and urban adolescents have been presented in tables 3 and 4.

Table 3: showing value of coefficient of correlation between study habits and home environment of rural adolescents (N=300)

Sr. No.	Variables	'r' value	Significance
1	Study habits and Home environment	0.082	Insignificant

Study habits were found to be insignificantly positively correlated with home environment of rural adolescents. The value of coefficient of correlation is 0.082.

Therefore, hypothesis no. 3 i.e. there exists a significant relationship between study habits and home environment of rural adolescents, is rejected.

Table 4: Showing value of coefficient of correlation between study habits and home environment of urban adolescents (N=300)

Sr. No.	Variables	'r' value	Significance
1	Study Habits and Home environment	0.074	Insignificant

Study habits were found to be insignificantly positively correlated with home environment of urban adolescents. The value of coefficient of correlation is 0.074.

Therefore, hypothesis no. 4 i.e. there exists a significant relationship between study habits and home environment of urban adolescents, is rejected.

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The values of coefficient of correlation between emotional maturity and home environment of rural and urban adolescents have been presented in tables 5 and 6.

Table 5: Showing values of coefficient of correlation between Emotional Maturity and home environment of rural adolescents (N=300)

Sr. No.	Variables	'r' value	Significance
1	Emotional Maturity and Home environment	0.126	Insignificant

Emotional maturity was found to be insignificantly positively correlated with home environment of rural adolescents. The value of coefficient of correlation is 0.126.

Therefore, hypothesis no. 5 i.e. there exists a significant relationship between emotional maturity and home environment of rural adolescents, is rejected.

Table 6: Showing value of coefficient of correlation between Emotional Maturity and home environment of urban adolescents (N=300)

Sr. No.	Variables	'r' value	Significance
1	Emotional Maturity and Home environment	1.61	Insignificant

Emotional maturity was found to be insignificantly positively correlated with home environment of urban adolescents. The value of coefficient of correlation is 1.61.

Therefore, hypothesis no. 6 i.e. there exists a significant relationship between emotional maturity and home environment of urban adolescents, is rejected.

CONCLUSIONS

- The coefficient of co-relation value between scientific attitude and home environment of rural adolescents was found to be -0.075, which is insignificant. It means that there exists no significant relationship between scientific attitude and home environment of rural adolescents. Therefore **hypothesis no. 1 is rejected.**
- The coefficient of co-relation value between scientific attitude and home environment of urban adolescents was found to be 0.134, which is insignificant. It means that there exists no significant relationship between scientific attitude and home environment of urban adolescents. Therefore **hypothesis no. 2 is rejected.**
- The coefficient of co-relation value between study habits and home environment of rural adolescents was found to be 0.082, which is insignificant. It means that there exists no significant relationship between study habits and home environment of rural adolescents. Therefore **hypothesis no. 3 is rejected.**
- The coefficient of co-relation value between study habits and home environment of urban adolescents was found to be 0.074, which is insignificant. It means that there exists no significant relationship between study habits and home environment of urban adolescents. Therefore **hypothesis no. 4 is rejected.**

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- The coefficient of co-relation value between emotional maturity and home environment of rural adolescents was found to be 0.126, which is insignificant. It means that there exists no significant relationship between emotional maturity and home environment of rural adolescents. Therefore **hypothesis no. 5 is rejected.**
- The coefficient of co-relation value between emotional maturity and home environment of urban adolescents was found to be 1.61, which is insignificant. It means that there exists no significant relationship between emotional maturity and home environment of urban adolescents. Therefore **hypothesis no. 6 is rejected.**

EDUCATIONAL IMPLICATIONS

As the studies show that the home environment does not play a much important role in the inculcation of scientific attitude, good study habits and emotional maturity in the adolescents, therefore it is the sole responsibility of the school or educational institutions to inculcate scientific attitude, good study habits and emotional maturity among the students. For this, the following educational implications can be taken care of by the educational institutions:

- Teachers in educational institutions should encourage the students to develop scientific attitude in them by indulging them in scientific activities.
- Teacher should also encourage the students to develop good study habits for the achievement of success in life.
- Teachers should maintain a conducive environment for the stable emotional development of the students.
- Parents should be guided by the teachers to have a conducive environment at their homes for the inculcation of scientific attitude, good study habits and emotional maturity in their children.
- Teachers should consider the inculcation of scientific attitude among students as one of the main objectives of teaching science curriculum.
- Debate and declamation contests should be organized in the educational institutions to draw the attention of the students and parents towards the importance of good study habits and scientific attitude.
- More and more of social activities should also be organized for proper emotional development of the students.
- More opportunities should be provided to the students in the schools for the development of scientific attitude, good study habits and emotional maturity at the max.
- Co-curricular activities like science club, scientific society, organization of science fairs and science exhibition should be organized for the development of scientific attitude among the students.
- Co-curricular activities like on social issues can be conducted for the development of emotionally stable students.
- Teachers should motivate the students to remain free from superstitions for the development of scientific attitude.
- Teachers should motivate the students to have a proper schedule for studies in the school as well as at home.

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- Teachers should motivate the students to share their feelings and doubts etc. for a stable emotional development.
- General awareness should be created in the society and especially in the parents regarding the importance of scientific attitude, good study habits and emotional stability.
- Parents should be invited in the educational institutions for guiding them the ways of good study habits. So that they can provide those ways to the children in their homes.
- All possible efforts should be made by the teachers to bring about the desired changes in the attitude and study habits of the students.
- Counseling can be done for those students who show the signs of emotional instability.
- Educational institutions should provide such a congenial environment in the institution which enhances the scientific attitude, good study habits and emotional maturity in the students.
- Teachers in the schools should themselves act as a role model for the inculcation of scientific attitude, good study habits and emotional maturity among the students.
- Proper attention should be given to the balanced development of all the aspects of the students. This will, directly or indirectly, affect the success of the students in their lives.

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REFERENCES

- Akuburio, I.M. and Joshua, M. T. (2004). Self Concept, Attitude and Achievement of Secondary Schools Students in Southern Cross River State Nigeria. *The African Symposium*, Vol. 4. No. 1, 32-34.
- Amjad, I.P. & Muhammad, F. (2012). Measurement of Scientific Attitude of Secondary School Students in Pakistan. *Academic Research International*, Vol. 2(2), 379-392.
- Baharudin, R. & Luster, T. (1998). Factors related to the Quality of the Home Environment and Children's Achievement. *Journal of Family issues*, 19 (4), 370-375.
- Basantia, J.M. & Mukhopadhaya, D. (2001). Effect of Environmental Factors on Achievement- A study on rural students. *The Educational Review*, 44 (11), 21-24.
- Basher, I. & Mattoo, N. (2012). A Study on the Study Habits & Academic Performance among Adolescents. *International Journal of Social Science*, Vol. I (15), 74-82.
- Beideinger, N. (2010). Early Ethnic Inequality: The Influence of Social Background and Parental Involvement on Preschool Children's Cognitive Ability in Germany. *Child Indicators Research*, Vol. 3(1), 11-28.
- Best, J.W. (1959). *Research in Education*. U.S.A. Prentice Hall Inc.
- Bhattacharya, G.C. (1997). Scientific Attitude and Its Relationship With Academic Achievement in Higher Secondary Level. *School Science*, Vol. XXXV (3), 68-71.

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- Chaudhary, M. & Kaur, P. (1993). Impact of Home Environment on Moral Values of Children. *Prachi journal of psycho cultural Dimension*, Vol. 9 (1), 39-43.
- Chaudhay, N.K. (2013). Study Habits and Attitude of General and Schedule Caste Students in relation to their Academic Achievement. *Education Confab*, Vol. 2 (1), 117-124.
- Coleman, A. M. (2001). *Dictionary of Psychology*. Oxford University Press, New Delhi.
- Coleman, J.C. (1973). *Psychology and Effective Behaviour*. D.B. Taraporevala Sons and Co. Pvt. Ltd, New Delhi.
- Dinkmeyer, D.C. (1967). *Child Development*. Prentice Hall of India Pvt. Ltd., New Delhi.
- Dutta, J. et. al. (2014). A Comparative study of Delinquency Prone and Non-Delinquency prone Adolescents with regards to Self Concept, emotional Maturity and Academic Achievement in Assam, *EDULight*, Vol. 3 (5), 216-222.
- Erinosho, S.Y. (2008). Teaching in Science in Senior Secondary Schools: A Methodological Research. *African Cultural Institute*, Africa
- Jerslid, A.t. (1968). *Educational Psychology*, Prentice Hall of India Pvt. Ltd., New Delhi.
- Kaur, A. (2002). *A Study of Select Intellectual and Non Intellectual Correlates of Scientific Attitude*. Ph.D. Thesis., Panjab University, Chandigarh.
- Kaur, M. (2013). A Comparative Study of Emotional Maturity of Senior Secondary School Students. *International Indexed and Referred Research Journal*, Vol. VII, Issue 34,48-49.
- Lata, K. & Aggarwal (1998). Effect of absence of Maternal Encouragement and its Impact on Educational Development of adolescents. *The progress of Education*, vol. LXIII (4), 27-31.
- Mendezabal, M.N. (2013). *Study habits and Attitudes: The road to Academic Success*. Open Science Repository Education, e70081928.doi:107392/education.70081928.
- Olasehinde, K.J. (2008). Effect of School Location on Students' Scientific Attitude and Concept in Biology. *Journal of Faculty of Social and Management Sciences*, Vol. 10 (1), 43-48.
- Olasehinde, K.J. & Olatoye, R.A. (2014). Scientific Attitude, Attitude towards Science and Science Achievement of Secondary School Students in Katsina State, Nigeria. *Journal of Educational and Social Research*, Vol. 4 (1), 445-452.
- Peacock, E.V. (2000), The Effect of Home Environmental Support and Teacher Instructional Practices on Secondary School Students' Academic Achievement and Perceptions of Content Meaningfulness. *Dissertation Abstracts International*, 61(4), 67-70.
- Raimi, S.A. & Oduwaye, J.O. (2011). College Students' Attitude towards Integrated Science as Predictor of Achievement in the Subject. *Journal of Science Education*. Vol. 2 (2), 10-17.
- Rana, S. & Kausar, R. (2011). Comparison of Study Habits & Academic Performance of Pakistan British & White British Students. *Pakistan Journal of Social & Clinical Psychology*, Vol. I, 21-26.
- Rani, R. (2013). Relationship between Home Environment and Study Habits of Senior Secondary School Students, *International Journal for Research in Education*, Vol. 2 (7), 35-37.

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- Sambrani, M.R. (1997). Home Environment and Emotional Disturbance among Adolescents. *Indian Psychological Review*. Vol. 48 (4), 11-14.
- Singh, Y. (2011). Academic Achievement and Study Habits of Higher Secondary Students. *International Journal of Educational Research*, vol. 3 (27), 19-20.
- Thiagarajan, A.P. and Vasanthi, A. (2002). Scientific Attitude of the Prospective Science Teachers in The Colleges of Education. *Journal of Educational Research and Extension*, Vol. 39 (3), 23-26.
- Yadav, R.S. & Patel, H.L. (1999). International Effect of Home Environment and Locality on creativity. *Journal of All India Association of Educational Research*. Vol. 11 (3), 31-38.
- Yeung, W.J. (2009). The Black White Test Score Group & Early Home Environment. *Social Science Research*, Vol. 38 (2), 412-437.

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