



A Study of Achievement In Science of IX Standard Students in Relation to Their Home Environment

KEYWORDS

Science Achievement, Home Environment

Dr.Mrs. J.E. Merlin Sasikala

Assistant Professor in Education, Alagappa University College of Education, Alagappa University, Karaikudi

ABSTRACT *An investigation was made to find out whether there is any significant difference between students of standard IX in their achievements in relation to their home environment. Random sampling technique was adopted to select a sample of 500 students of standard IX in pudukkottai district and self made standardized tool was used to collect data. The result revealed that there is significant difference between students of standard IX in their achievement in Science in relation to their home environment.*

Introduction

Academic achievement is the product variables which gets turned up or down by the positive or negative influence or host of independent variable. Quality of performance has become the key factor for personal progress. Parents desire that their children climb the ladder of performance to as high a level as possible. This desire for a high level of achievement puts a lot of pressure on students, teachers, schools and in general, the educational system itself. A number of research studies have been undertaken to identify the factors affecting achievement or the factors causing the achievement. Some students achieve high while others achieve low in the same school environment.

Need of the Study

Education is a process and acts as an instrument to bring out the innate behaviour of the individual. During the higher secondary level, they are in position to improve their home environment and their esteem to utmost extent. Emotional problem may be the feelings of insecurity feelings of frustration, failure to achieve the desired goal, and in ability to satisfy the inner urges. The home environment problem may be due to temptation and gratification. Those problems are leading to the emotional imbalance and affect personality development. Thus a study of the home environment may be considered to be of great importance.

ObjectiveS of the Study

- To study whether there is any significant difference between male and female students in respect of their home environment.
- To study whether there is any significant difference between rural and urban area students in respect of their home environment.
- To study whether there is any significant difference between government and private school students in respect of their home environment.
- To study whether there is any significant difference among the wards of uneducated, school level educated, college level educated and higher educated fathers in respect of their home environment.
- To study whether there is any significant difference among the wards of uneducated, school level educated, college level educated and higher educated mothers in respect of their home environment.
- To study whether there is any significant relationship between achievement in science and home environment of the secondary school students.

HypothesEs

- There is no significant difference between male and female students in respect of their home environment.
- There is no significant difference between rural and ur-

ban area students in respect of their home environment.

- There is no significant difference between government and private school students in respect of their home environment.
- There is no significant difference among the wards of uneducated, school level educated, college level educated and higher educated fathers in respect of their home environment.
- There is no significant difference among the wards of uneducated, school level educated, college level educated and higher educated mothers in respect of their home environment.
- There is no significant relationship between achievement in science and home environment of the secondary school students.

Methodology

The investigator adopted normative survey method for the present study. It involves describing, recording, analysis and interpreting the data.

Sample of the Study

The sample selected for the study consisted 500 students studying at standard IX in secondary schools of pudukkottai district. The sample were selected by using simple random sampling technique.

Tools used for the study

The investigator used a self constructed home environment scale for collecting the data.

Research Findings and Discussion

The first objective was to study the significant difference between male and female students in respect of their home environment. For this mean, S.D and t-value was calculated which is exhibited in the table 1.1.

Table 1.1
Showing the Significant Difference Between the Male and Female Students in their Home Environment

Gender	N	Mean	S.D	t Value	Significant at 0.05 level
Male	285	22.36	5.12	3.01	Significant
Female	215	23.61	4.16		

It is inferred from the above table that the calculated t value is higher than the table value 1.96 at 0.05 level. Hence the null hypothesis is rejected. So it is concluded that the male and female students differ significantly in their home environment.

The second objective was to study the significant difference between the rural and urban area students with respect to their home environment. For this mean S.D and t value was calculated which is exhibited in the table 1.2 .

Table 1.2
Showing the Significant difference between the Rural and Urban Area Students in their Home Environment

Locality	N	Mean	S.D	t Value	Significant at 0.05 level
Rural	291	23.41	4.25	2.72	Significant
Urban	209	22.19	5.32		

It is inferred from the above table that the calculated t value is higher than the table value 1.96 at 0.05 level. Hence it is concluded that the rural and urban area students differ significantly in their home environment. Thus the null hypothesis is rejected.

The third objective was to study the significant difference between government and private school students in their home environment. For this mean S.D and t value was calculated which is exhibited in the table 1.3.

Table 1.3
Showing the Significant difference between the Government and Private School Students in their Home Environment

Type of Management	N	Mean	S.D	t Value	Significant at 0.05 level
Government	328	22.25	5.23	4.85	Significant
Private	172	24.13	3.41		

It is inferred from the above table that the calculated 't' value is higher than the table value 1.96 at 0.05 level. Hence it is concluded that the government and private school students differ significantly in their home environment. Thus the null hypothesis is rejected.

The fourth objective was to study the significant difference among the wards of uneducated, school, college and higher level educated fathers in their home environment score. For this mean S.D and 't' value was calculated which is exhibited in the table 1.4.

Table 1.4
Showing the significant difference among the wards of Uneducated, School, College and Higher level educated Fathers in their Home Environment

Father Education	N	Mean	S.D	'F' value	Significance at 0.05 level
Uneducated	20	24.65	3.55	4.03	Significant
School level	174	22.21	5.23		
College level	241	23.48	4.22		
Higher level	65	22.06	5.25		

It is inferred from the above table that the calculated 'F' value is higher than the table value 2.58 at 0.05 level. Hence it is calculated that the sub samples of father education differ significantly in their home environment. Thus the null hypothesis is rejected.

The fifth objective was to study the significant difference among the wards of uneducated, school, college and higher level educated mothers in their home environment score. For this mean, S.D and 't' value was calculated which is exhibited in the table 1.5.

Table 1.5
Showing the significant difference among the wards of Uneducated, School, College and Higher level educated mother in their Home Environment

Mother Education	N	Mean	S.D	'F' value	Significance at 0.05 level
Uneducated	23	24.91	3.56	6.65	Significant
School level	312	22.36	5.14		
College level	136	24.04	3.40		
Higher level	29	21.72	5.64		

It is inferred from the above table that the calculated 'F' value is higher than the table value 2.58 at 0.05 level. Hence it is calculated that the sub samples of mother education differ significantly in their home environment. Thus the null hypothesis is rejected.

The sixth objective was to study the significant relationship between achievement in science and home environment of students. For this co-efficient of correlation (r) was calculated which is exhibited in the table 1.6.

Table 1.6
Showing the co-efficient of correlation between Achievement Score and their Home Environment Scores of Students

Sample	df	'r' value	Level of Significance at 0.05 level
Entire	498	-0.108	Significant

It is inferred from the above table that the calculated 'r' value is -0.108 which is significant at 0.05 level. Hence it is concluded that there is a significant negative relationship exists between achievement in science scores and home environment scores of students.

Conclusion

On the basis of analysis and interpretation of data it can be concluded that the students have better home environment for their education. But the result revealed that the achievement in science has no positive correlation with their home environment. So the teachers should take more responsibility to bring the achievement in science.

REFERENCE

Lori.K (2004), Children's Home Environments; Understanding the Role of Family Structure Changes, journal of Family issues No:25; p.3-28. | Ourdes.L.D and Soto (1988) The Home Environment of Higher and Lower Achieving Children. Hispanic Journal of Behavioral Sciences, No.10, p.161-168. | Rachel.S and Advermulst, (2002) Family Environment Educational Aspirations and Academic Achievement in Two Cultural settings, Journal of cross - Cultural Psychology, No.33, p.540-558. |