A Study of Family Climate and Academic Achievement of IX Standard students of Kerala

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Abstract

Family and parents played an important role in the study of children especially in the age of adolescence, The aim of this study was to find out the role of family or influence of family environment towards the academic achievement of secondary school students with special reference to IXth standard. A correlation research study using Pearson's coefficient of correlation and the sample was 405 students of IX standard.

Keywords

Family climate, Academic Achievement

Introduction

According to Mahatma Gandhi Education is the all round drawing out of the best in child and man body, mind and spirit. Education can be formal or nonformal, but its aim is to acquire knowledge culture and values. Being a good social being is very important in the life of an individual. Research has found that education is the strongest determinant of individual's occupational status and chances of success in adult life. Family socio economic status and school success or failure are interconnected. An educated society is an enlightened and empowered one. It is the responsibility of the society to provide good education to its members for their development and to contribute to their family and society. Family is the first agency to influence and promote the child to inculcate cultural and social values for being a perfect social being.

Family is a group of people related to either by consanguinity or affinity. It forms the basis for social order. Family performs various valuable functions for its members. The most important thing is that family provides emotional and psychological security particularly through the love and companionship that living together generates between spouses and towards their

children. Family has its own responsibility in various dimensions.In the social aspect it is the duty of the family to make maintain good cultural and social values among the members and transmit such values to the younger ones. In the economic dimension it is the function of the family to satisfy the essential needs of the members and the very important thing is that family must take care of the education of their children and for that it should provide enough financial and psychological support.

This study focused on the influence of family towards the academic achievement of IX standards students. The researcher selected this sample for the study because during the adolescent period children are more conscious about their self and they need emotional support from the family.

Objectives

- To find out the role of family climate in the academic achievement IX standard students.
- To find out whether there is any significant difference between a academic achievement of boys and girls with reference to the influence of family climate.
- To explore the relationship between family climate and academic achievement with special reference to rural and urban area.

Hypothesis

Family climate of a student with correlate significantly with academic achievement. There will be significant difference between boys and girls, urban and rural in respect to family climate.

Methodology

Normative Survey method is adopted for the collection of data for the study. A sample of 405 students from two districts, Thiruvananthapuram and Kollam of Kerala, were selected for the study using stratified sampling Technique. The data collected from the sample were analysed using appropriate statistical techniques and interpret accordingly.

The researcher used Family Cultural Level rating scale, Family environment Index Inventory, Family acceptance Education Rating scale and Home learning Facility Inventory for collecting data.

This is a correlational study so the researcher used pearson's product moment coefficient of correlation for analysing the data.

Procedure and Findings

The researcher used the above mentioned four tools to collect sufficient data from the selected sample.

Family cultural Level Rating scale

This is an eighteen-item rating scale for measuring the cultural level of a family developed by Nair and Nirmaladevi. The subjects are expected to respond to each item using a three point scale. The test item relate to different behaviour of the members of a family, which vary from the number of aspects newspapers and magazines bought of domestic life and social children when they behave in a crude manner towards others. Two to how the parents correct their representative items of this scale are given below:

		Many	Few	None
(i)	The number of cultural organisations in which you (other members of your family) are members	( )	( )	( )
(ii)	Your parents encourage you to hear all the educational broadcast.	Always	Sometimes	Never
		( )	( )	( )

Responds is to be made by ticking in the appropriate place. Tick mark in the lowest point of the scale would receive a unit score, scoring in the next two points would be allocated scores of two and three respectively. The score for each subject is the sum of the scores obtained by the individual for all the items.

Validity and Reliability

The validity and reliability of the test is reported in the test manual. The test has been validated by correlating it with the Kerala Socio-economic scale for a sample of secondary school pupils. The coefficient of correlation is 0.32 (N=47). The split half reliability of the test was estimated in a sample of 84 school pupils. The test indicated a relatively high degree of reliability (0.83). The validity and reliability indices show that the test is a reasonably good instrument for measuring the construct in question.

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Family Environment Index Inventory

This is a popular research tool for measuring family environment. This inventory has been developed by Nair and Nirmaladevi for the use of social researchers who want to obtain a quick index of the family environment in terms of its cultural and social advancement. The test is in the form of a rating scale with fourteen items. The response of each item is to be made by entering a tick mark against it in one of the three rating scale points. Two representative items are given below:

		Many	Few	None
(i)	The number of huge buildings in the vicinity of your home.	( )	( )	( )
(ii)	The frequency of quarrels among your neighbours	( )	( )	( )

The subject is required to put a tick mark in one of the three brackets given against each positive items (showing a socially accepted and therefore a better environment) and are scored by assigning scores 1, 2, 3 to tick marks none, few or many respectively. Negative items will be scored in reverse order. The score in the inventory is the sum total of the scores assigned to an individual for all the fourteen items.

Validity and Reliability

The scale has been validated against ranking by specialists fourtyfive households occupied by forty five respondents were independently racked by a team of three social researchers. They rated the family environment by observing the surroundings and rating each on a five point scale. The ratings were converted in to scores using conventional procedures. The scores assigned by the three members were arranged and used as the external extension. A product moment correlation of 0.47 was obtained showing that the scale is a reasonably valid instrument for measuring 'family environment'. The split half reliability (N=79) was 0.66 again showing that it is a reasonably reliable instrument,

Family acceptance Education Rating Scale

This is a popular scale for measuring the construct of 'family acceptance of education', with particular reference to Kerala This scale has been developed by Nair and Nirmaladevi. The

construct is measured with the help of sixteen items to which the subjects have to respond, with the help of a three point scale. Some representative items of the scale are given below:

		Always	Some times	Never
(i)	Your parents help you to learn difficult subjects	( )	( )	( )
(ii)	Your parents buy you popular books which will enrich your learning	( )	( )	( )

'Never' response is given a zero score; the 'sometimes' response is given a unit score, while the 'always' response would receive a score 'two.' The score of a subject is the sum of the scores obtained by a respondent for all the sixteen items of the scale.

Validity and Reliability

The authors of the scale claim 'validity in terms of the procedure adopted for developing the scale, and in terms of the results of the external validation study conducted by them. Apart from the fact that the sixteen items has been selected by a select panel of 20 judges from a list of 100 items presented to them, the test has been validated against two external criteria. The co-efficient of correlation of the scores on the rating scale with total class achievement. (marks obtained by pupils in a generalised achievement test in six school subjects is 0.39.) The study used 123 pupils of standard X. Another validity used the same sample. The scores of the scale were correlated with the scores on another standardised scale viz., Scale of Attitude Towards Academic Work. The correlation in this case was 0.44. The split half reliability of the scale using a sub-sample (N=54) of the above sample was estimated 0.73. There values show that the scale is a reasonably valid and reliable instrument for the purpose of the present study.

Home Learning Facility Inventory

This is an eighteen - item inventory developed by Nair and Nirmaladevi. This inventory consists of three sections, each containing a list of six basic facilities required, for home learning. These vary from whether there is a separate table for the pupil and an English- Malayalam dictionary, to the availability of an environment for learning. The subject is required to respond to each item by making their availability at home (using Yes or No). Each Yes response receive 'a unit' score while 'no' response receive a 'zero' score. The score of a subject is the sum of the scores obtained by him in all the eighteen- items of the inventory.

Validity and Reliability

The validity of inventory has been assured in terms of the definition and representation given to the concept under measurement (construct and concurrent validity). A crude form of external validation is also reported. The scores of the inventory was correlated with total class achievement of 85 pupils of standard IX in a selected secondary school. A correlation of 0.41 is reported by the author of the test. The split half reliability co-efficient of the test (worked out using the sample used for the external validation study reported above) as reported by the author is 0.69. The test, on the whole, or a reasonably valid and reliable instrument for measuring the construct of home learning facility under Kerala conditions.

The score of 'Family climate' variable is obtained by taking the sum of the scores of four tests viz., Family Cultural Level Rating Scale, Family Environment Index Inventory, Family Acceptance Education Rating Scale, Home Learning Facility Inventory.

Analysis of data means studying the tabulated material in order to determine the inherent facts for meaning. It involves breaking down of existing complex factors in to simpler parts and putting the parts together in new arrangements for the purpose of interpretations. Interpretation is the critical examination of the result of one's analysis in the light of all the limitation of data gathering. To find out the degree of relationship between family climate and academic achievement in language using the product moment coefficient of correlation for the total sample and the relevant sub sample of the study.

The present study calculated using Pearson's product moment correlation coefficient with the help of this formula where N is the sample size and X and Y are the two variable to be correlated.

$$r = \frac{N\Sigma XY - \Sigma X . \Sigma Y}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2][N\Sigma Y^2 - (\Sigma Y)^2]}}$$

Correlation table showing the relationship between Family climate and academic achievement

Variable correlated	Whole	Boys	Girls	Urban	Rural	Govt.	Private
Family climate and academic achievement	0.24**	0.21**	0.21**	0.13	0.38**	0.29**	0.20**

*denote significant at 0.05 level

** denotes significant at 0.01 level.

Variable correlated	Limits at 0.01 Confidence Interval													
	Whole		Boys		Girls		Urban		Rural		Govt.		Private	
	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper
Family climate	0.1191	0.3608	0.0381	0.3818	0.0351	0.3848	-0.0422	0.3021	0.2190	0.5409	0.1203	0.4596	0.0290	0.3709

Correlation between family climate and academic achievement.

`The coefficient of correlation obtained in whole sample is 0.24. It issignificant at 0.01 level (greater than the value set significance at 0.01level, viz, 0.1282). The 0.01 Confidence interval is from 0.1191 and0.3608.For boys the coefficient of correlation obtained is 0.21. It is significant at 0.01 level (greater than the value set significance at 0.01 level, viz, 0.1797.) The 0.01 confidence interval is from 0.381 and 0.3818.For girls the coefficient of correlation obtained is 0.21. It is significant at 0.01 level (greater than the value set significance at 0.01 level, viz; 0.1828). The 0.01 confidence interval is from 0.03551 and 0.3848.

For Urban Subjects the coefficient of correlation obtained is 0.13. It is not significant. The 0.01 confidence interval is -0.0422 and 0.3021. For Rural Subjects the coefficient of correlation obtained is 0.38. It is significant at 0.01 level. (greater than the value set significance at 0.01level, viz, 0.1881) The 0.01 confidence interval is from 0.2190 and0.5409.

For Government School Students the coefficient of correlation obtained is 0.29. It is significant at 0.01 level (greater than the value set significance at 0.01 levels, viz; 0.1852. The 0.01 confidence interval is from 0.1203 and 0.4596.The Private School students the coefficient

of correlation obtained is 0.21. It is significant at 0.01 level (greater than the value set significance at 0.01 level, viz, 0.1780). The 0.01 confidence interval is from 0.0290 and 0.3709.

There is considerable relationship between Family climate and Academic Achievement.For all samples, except for the urban subjects, the correlation coefficients obtained are significant at 0.01 level. All the obtained coefficient are positive showing that any increase in family climate will be attended by a corresponding increase in achievement.

The study provides sufficient evidence to decide the validity of the hypothesis set for it. An attempt has been made to examine the validity of the various hypotheses. Hypothesis is partially substantiated since all the coefficient correlation were not significant.

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