Effect of family Interaction pattern on High and Low Achievers of Secondary School Students: A Comparative study

Rashmi* and Bina Prasad**

*Junior Research Fellow, Department of Education, Patna University, Patna, Bihar, India.
**Assistant Professor, Patna Training College, Patna University, Patna, Bihar, India.

Email- rashmipranay06@gmail.com

ABSTRACT

The present study aims to explore the relationship between family interaction pattern and academic achievement of high and low achiever secondary school students of Bhagalpur district in Bihar (India). It involved 288 sample consisting 86 high and 202 low achievers further classified by gender: Family Interaction Pattern Scale (FIPS) developed by Bhatti (1986) was used. Hypotheses were tested using mean, standard deviation and ANOVA at the 0.01 and 0.05 level of significance. Result showed that family interaction pattern has significant effect on student's academic achievement (F value-54.94> F critical-1.57). It also showed that there is a significant difference in family interaction pattern on the basis of gender (F value-935.16>F critical-6.74). Based on the findings, it is recommended that parents should interact with their children and they should get appropriate guidance and counseling for developing good home environment for better understanding of their wards.

Key words: Family interaction pattern, academic achievement, high achiever, low achiever, guidance, counseling

INTRODUCTION

Home is the first school for children where they learn by play and imitation with lots of love and care and the family members are the key source of it. Student's physical, mental and emotional development are totally depends on the family environment. Families prepare and reinforce the knowledge and attribution required by schools. Families vary greatly in structure and functioning. There are diversities in families as well as in the student's academic achievement. Students having different academic achievement with same intelligence quotient (IQ) that is why there is a need to understand how children experience within their family and express their educational outcomes. Few researches in various states of India have attempted to focus on the influence of changing family environment but there is no studies took place in Bihar especially in any district till now, that is why researcher felt the need to study how Family interaction pattern related to academic achievement of secondary school high and low achiever students. For this researcher tested two hypotheses. First was “there is no significant effect of Family Interaction Pattern on academic achievement of high and low achiever students”. Second was “there is no significant difference in Family Interaction Pattern on the basis of gender”.

METHODS AND PROCEDURE

This study was descriptive in nature that involved the determination and description of the effect of study habit on academic achievement of high and low achievers of secondary school students of Bhagalpur district in Bihar (India).

Sample and Sampling Procedure:
The study was targeted at all high and low achiever students of both government and public secondary schools. A sample of 288 students was selected by random sampling method from each group (high and low achiever) in which 86 students were high and 202 students were low achievers. High and low achievers were selected on the basis of their marks in consecutive three terminals. High and low achievers were also grouped by gender. High achievers had have 40 female & 46 male subjects and low achievers had have 71 female & 131 male subjects.

Instrumentation:
Family Interaction Pattern Scale (FIPS) developed by Bhatti (1986) was used. This is a self rating questionnaire which has 106 items. It is easy to administer in a group. There are positive and negative
items. The positive items has a response choice of always, sometimes, rarely and never which is scored as 1, 2, 3 and 4. The negative items also has a similar response choice but scored as 4, 3, 2 and 1, thus a higher score yields a poor quality of family interaction.

**Data Collection:**
The questionnaire was administered to the respondents on the spot. Each individual had taken almost 2 to 2 hour 30 minutes to complete the test materials.

**Data Analysis:**
Scoring was done according to the scoring pattern. The total score ranges from 0 to 424. A high score than the normal range in family interaction pattern indicates poor quality whereas a low score indicates better quality. The normal range is 160-228. Mean, standard deviation and two way analysis of variance at 0.01 and 0.05 level of significance were used to test the hypotheses.

**RESULT AND DISCUSSION**
Table 1 shows that F value is much higher than the F critical (F value-54.94> F critical-1.57 (0.01 level of significance/1.38(0.05level of significance) so that the first null hypothesis (there is no significant effect of Family Interaction Pattern on academic achievement of high and low achiever students) can be discarded. The total mean score of the low achievers exceeds the normal range and hence showed a slightly deviant family interaction pattern. This means that most of the low achievers were from families where the quality of the interaction was very poor. Second hypothesis (there is no significant difference in Family Interaction Pattern on the basis of gender) can also be discarded on the basis of table 1 (F value-935.16/F-critical-6.74 (0.01 level of significance)/3.88 (0.05level of significance). A significant interaction among achievement group and gender group is found (F value-40.49> F critical-1.57 (0.01 level of significance)/1.38(0.05level of significance). The interaction effect is revealed by the fact that gender difference in Family Interaction Pattern was more pronounced in the low achievement group than in the high achievement group that means low achievers females does not have quality parental interaction in comparison to male however, even low achiever male also lacking quality parental interaction (table 1). High achiever females found to have better Family Interaction Pattern than high achiever males. Low achiever males found to have better Family Interaction Pattern than low achiever females. Total females found to have better Family Interaction Pattern than total males (table 2).

The association exists between parental-involvement and pupil's academic achievement. This finding supports previous investigations of Mishra & Bamba 2012. Kim (2002) studied the impact of home environment on the scholastic achievement of children and found that good quality of home environment had significant positive correlation with high level of scholastic achievement in boys than among girls.

An ideal home environment is one where there is proper reward to strengthen the desired behavior, a keen interest in and love for the child, provision of opportunities to express its views freely where parents put less restrictions to discipline the child, not preventing the child from acting independently and not continuing infantile care, optimum use of physical and affective punishment where the children are not compelled to act according to parental desires and expectations. Studies show that high parental involvement leads to high achievement and low parental involvement leads to low achievement (Ahuja and Goyal, 2005).

Parental acceptance and encouragement are positively related with academic school success and competence (Harris and Goodall, 2008). Family factors play an important role in influencing the psychosocial adjustment, particularly the positive mental health, of Chinese adolescents. Whether parents are involved in and support their adolescent's school life can directly affect their personal and social development as well as their academic success (Jeynes, 2007, Bandhana and Sharma, 2012, Maddahi, et. al., 2012).

In contrary Forgays (1992) asserts that there are many contradictions for every child coming from an adverse background who fails to succeed. There are others in environments apparently just as unfavourable that appear to rise above them. Other children are of high ability with apparently ideal home environments who fail to achieve what is expected of them.

Earlier study by Deal, Wampler and Halverson (1998) had reported that high achieving girls are influenced by the affective quality of family interaction. This has been substantiated by the present study where the high achieving girls were the group who has reported the better quality family interaction. They have also reported that the boy's academic performance is highly influenced by the quality of parental relationship. A similar finding has been observed here where among the four groups, the low achieving boys have reported the worst family interaction pattern. The family interaction pattern is a dynamic sequence of exchange of several messages between the family members. The study of the family
interactions will yield some of the basic reason that influences the children in certain specific ways. Here the low achievers have reported to have a poor quality family life when compared to the high achievers. If a person’s high intelligence is to be realized the child has to be relatively free of concerns, so that he can continue to take information about the world and to stimulate other people to talk in ways that enable him to learn from them. If a child’s family life fulfils its needs, his energy is released for learning more. But if he is tied up in neurotic conflicts in his family, he/she will not have the zest for taking the information and proper processing of it.

Table 1: The summary of two way ANOVA of high and low achievers of the Family Interaction Pattern with respect to gender at 0.01 and 0.05 level of significance

<table>
<thead>
<tr>
<th>Family Interaction</th>
<th>Source</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Mean squares</th>
<th>F value</th>
<th>p value</th>
<th>F critical 0.01/0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td></td>
<td>3066074.45</td>
<td>58</td>
<td>52863.35</td>
<td>54.94</td>
<td>1.01E-108</td>
<td>1.57/1.38</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>899761.04</td>
<td>1</td>
<td>899761.04</td>
<td>935.16</td>
<td>4.68E-84</td>
<td>6.74/3.88</td>
</tr>
<tr>
<td>Interaction</td>
<td></td>
<td>2259365.46</td>
<td>58</td>
<td>38954.58</td>
<td>40.49</td>
<td>1.29E-94</td>
<td>1.57/1.38</td>
</tr>
<tr>
<td>Within error</td>
<td></td>
<td>227066.67</td>
<td>236</td>
<td>962.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6452267.62</td>
<td>353</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: The mean and SD values of high and low achievers of the Family Interaction Pattern with respect to gender

<table>
<thead>
<tr>
<th>Family Interaction Pattern</th>
<th>Academic achievement level</th>
<th>Statistics</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>111.22</td>
<td></td>
<td>98.13</td>
<td>105.13</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>21.61</td>
<td>9.13</td>
<td>18.12</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>46</td>
<td>40</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>303.68</td>
<td>325.72</td>
<td>311.43</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>54.68</td>
<td>36.84</td>
<td>50.18</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>131</td>
<td>71</td>
<td>202</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Mean</td>
<td>253.66</td>
<td>231.21</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>97.43</td>
<td>123.23</td>
<td>135.19</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>177</td>
<td>111</td>
<td>288</td>
</tr>
</tbody>
</table>

CONCLUSION

- Most of the low achievers are from families where the quality of the interaction is very poor.
- Low achiever females do not have quality parental interaction in comparison to male low achiever students.
- High achiever females found to have better Family Interaction Pattern than high achiever males.
- Low achiever males found to have better Family Interaction Pattern than low achiever females.
- Total females found to have better Family Interaction Pattern than total males.

RECOMMENDATION

- Parents should properly interact with their children.
- Parents should get appropriate guidance and counseling for developing good home environment for better understanding of their wards.
- Parents should reward their children for their better achievement.
- Parents should care about their deeds, their home work, examination, extra co-curricular activities and suggest them without imposing their decision on their wards.

ACKNOWLEDGEMENT

Rashmi thanks to the University Grant Commission, New Delhi, India for their support in terms of grant and we both author thank to principals, teachers and students for their support in this research work.
REFERENCES

Citation of This Article