Effect of Family Variables on Multiple Intelligences of Secondary School Students of Gujarat State

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ABSTRACT

There are billions of people in the world, but it is impossible to find two people identical because God doesn’t repeat His creation. It means everybody is inborn different. But, our education system is such that treats everybody in more or less same way which hampers the development of a child negatively and his or her contribution as well. Hence, researcher has conducted this study entitled “Effect of Family Variables on Multiple Intelligences of Secondary School Students of Gujarat State” to study the individual potential of children in terms of their intelligences and the effect of family related variables on their intelligences. It was found that some of the family and environment related variables affect the intelligences of learner positively and some do not have any effect as given.

Keywords: Family, Variables, Intelligence, Secondary School, Students, Gujarat State.

Gardner (1999) emphasized on ‘diversity of students’ intelligence and acknowledged that every child possesses inborn creativity, but many children lose interests in learning due to rigid educational curriculum that is only focused on verbal/linguistic and Logical Mathematical intelligence. In order to develop each child’s uniqueness, educators should be able to look at the inner world of children. Teachers need to be aware of these differences. Insensitivity of teachers and trainers toward these unique ways of thinking and learning may end up students being labeled as underachievers.

To understand these diversities of students, Gardner (1993) identified seven different intelligences or seven different ways that a person can learn. They were 1 to 7 in the list given below. Later, Dr. Gardner (1999) proposed two more different intelligences to account for a broader range of human potential in children and adults. Following intelligences were suggested by Gardner.

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1. Linguistic intelligence
2. Logical-Mathematical intelligence
3. Spatial intelligence
4. Bodily-Kinesthetic intelligence
5. Musical intelligence
6. Interpersonal intelligence
7. Intrapersonal intelligence
8. Naturalist intelligence

Hence, it is essential to understand learners from their point of view. Moreover, apart from inherited potential, learners are also affected environment they face including working status and qualification of the parents, number of siblings and nature of family they live in. Hence, in order to understand the learners’ individuality and the effect of family related variables on their intelligences, this research has been carried out. Findings of this research provide the base to teachers, parents, schools, curriculum developers, and policy makers etc. to take decisions for next generation.

**REVIEW OF PREVIOUS RESEARCHES**

The researcher has reviewed the previous researches to conduct the present research. Out of total 23 studies, 9 studies were found conducted in the foreign settings and 14 were from Indian settings. The Multiple Intelligences were used as dependent variable in all of the studies. Moreover, some of the other variables were studied in reference to the Multiple Intelligences. Among them Maria do Rozario (2003) analysed the MI theory in English Language Teaching (ELT); Gogebakan, Derya (2003) studied how MI differ in terms of Grade level and Gender and Gurçay, Deniz (2003) analysed the effect of Multiple Intelligences based instruction on students’ Physics achievement; Seyyed Ayatollah Razmjoo (2008) studied language mastery and gender; Aysel Sarisaoglu and Arda Arikandan(2009) studied gender and parental education; Hassan-Pasha Sharifi (2005) studied gender and achievement level; Rio Sumarini and others studied achievement level. Ramzi Nasser, & other (2008), and Sudha Chikara (2008) studied gender; Sawlis, Caryn (2009) studied the importance of adding MI to virtual learning; Gale, La Tonya (2012) studied How Gardner’s MI theory influenced the leadership in organisation; Jamal and Fadi (2012) studied the level of Multiple Intelligences in Social science teachers in Jordan; Jose Agnes (2011) analysed the relation between academic achievement and Bodily-Kinesthetic of school children; Partani, Swati (2011) studied to develop MI training module for Preschool teacher and analysed its effect on Preschool children; Ashok G. Chanchu (2012) studied Residential area and subject stream as the variables.

**OBJECTIVES OF THE STUDY**

*The study was carried out to realize following objectives.*

1. To study the effect of **working status of parents** on various Multiple Intelligences of students
2. To study the effect of educational **qualification of parents** on various Multiple Intelligences of students
3. To compare the Multiple Intelligences of students residing in joint **family** and nuclear family
4. To study the effect of number of **siblings** on various Multiple Intelligences of students.
Null Hypotheses:
1. There is no significant difference in mean scores of Interpersonal intelligence of P1 and P2 children.
2. There is no significant difference in mean scores of Intrapersonal intelligence of P1 and P2 children.
3. There is no significant difference in mean scores of Linguistic intelligence of P1 and P2 children.
4. There is no significant difference in mean scores of Logical Mathematical intelligence of P1 and P2 children.
5. There is no significant difference in mean scores of Naturalist intelligence of P1 and P2 children.
6. There is no significant difference in mean scores of Spatial intelligence of P1 and P2 children.
7. There is no significant difference in mean scores of Bodily Kinesthetic intelligence of P1 and P2 children.
8. There is no significant difference in mean scores of Musical intelligence of P1 and P2 children.
9. There is no significant difference in mean scores of Interpersonal intelligence of Q1 and Q2 children.
10. There is no significant difference in mean scores of Intrapersonal intelligence of Q1 and Q2 children.
11. There is no significant difference in mean scores of Linguistic intelligence of Q1 and Q2 children.
12. There is no significant difference in mean scores of Logical Mathematical intelligence of Q1 and Q2 children.
13. There is no significant difference in mean scores of Naturalist intelligence of Q1 and Q2 children.
14. There is no significant difference in mean scores of Spatial intelligence of Q1 and Q2 children.
15. There is no significant difference in mean scores of Bodily Kinesthetic intelligence of Q1 and Q2 children.
16. There is no significant difference in mean scores of Musical intelligence of Q1 and Q2 children.
17. There is no significant difference in mean scores of Interpersonal intelligence of students staying in Joint family and Nuclear family.
18. There is no significant difference in mean scores of Intrapersonal intelligence of students staying in Joint family and Nuclear family.
19. There is no significant difference in mean scores of Linguistic intelligence of students staying in Joint family and Nuclear family.
20. There is no significant difference in mean scores of **Logical Mathematical** intelligence of students staying in Joint family and Nuclear family.

21. There is no significant difference in mean scores of **Naturalist** intelligence of students staying in Joint family and Nuclear family.

22. There is no significant difference in mean scores of **Spatial** intelligence of students staying in Joint family and Nuclear family.

23. There is no significant difference in mean scores of **Bodily Kinesthetic** intelligence of students staying in Joint family and Nuclear family.

24. There is no significant difference in mean scores of **Musical** intelligence of students staying in Joint family and Nuclear family.

25. There is no significant difference in mean scores of **Interpersonal** intelligence of students ‘without siblings’ and ‘with siblings’.

26. There is no significant difference in mean scores of **Intrapersonal** intelligence of students ‘without siblings’ and ‘with siblings’.

27. There is no significant difference in mean scores of **Linguistic** intelligence of students ‘without siblings’ and ‘with siblings’.

28. There is no significant difference in mean scores of **Logical Mathematical** intelligence of students ‘without siblings’ and ‘with siblings’.

29. There is no significant difference in mean scores of **Naturalist** intelligence of students ‘without siblings’ and ‘with siblings’.

30. There is no significant difference in mean scores of **Spatial** intelligence of students ‘without siblings’ and ‘with siblings’.

31. There is no significant difference in mean scores of **Bodily Kinesthetic** intelligence of students ‘without siblings’ and ‘with siblings’.

32. There is no significant difference in mean scores of **Musical** intelligence of students ‘without siblings’ and ‘with siblings’.

**DELIMITATIONS**

*Following were the delimitations of the present study:*

The study was delimited to the students of Std. IX & X of English Medium Schools of Gujarat State.

**Operational Definitions of Key Terms**

**Multiple Intelligences:** Total eight intelligences as given here are called as Multiple Intelligences. They are: Linguistic Intelligence, Logical-Mathematical intelligence, Spatial intelligence, Bodily-kinaesthetic intelligence, Musical intelligence, Interpersonal intelligence, Intrapersonal intelligence and Naturalist intelligence. Scores obtained on the statements of each intelligence are the scores of the student on that intelligence.
Effect of Family Variables on Multiple Intelligences of Secondary School Students of Gujarat State

**Working status of Parents:** It refers to whether one of both the parents is working or both of them are working for economic purpose.

**P1 Family:** It refers to one of the both parents is carrying out economic activity for family sustenance.

**P2 Family:** It refers to both of the parents are carrying out economic activity for family sustenance.

**Siblings:** It refers to the real (blood relation) sister and brother of a student.

**Nature of Family:** It refers to whether the student is staying in Joint family or Nuclear family.

**Graduate Parents:** One or both of the parents are Graduate.

**Non Graduate Parents:** None of the parents is Graduate.

**Variables**

*The variables undertaken in the present study were as given below:*

a. **Dependent Variables:**
   1. **Multiple Intelligences**
      i. Interpersonal intelligence
      ii. Intrapersonal intelligence
      iii. Linguistic Intelligence
      iv. Logical-Mathematical intelligence
      v. Naturalist intelligence
      vi. Spatial intelligence
      vii. Bodily-kinaesthetic intelligence
      viii. Musical intelligence

b. **Independent Variables:**
   1. Working status of Parents –
      i. One working and both working parents
      ii. Joint and Nuclear
   2. Nature of Family –
      i. ‘With Siblings’ and Without Siblings
   3. Siblings –
      i. ‘With Siblings’ and Without Siblings
   4. Qualification of Parents –
      i. Both/One Graduate & None-graduate

c. **Control Variables:**
   1. Gujarat State
   2. English Medium Schools
   3. Standard IX & X Students and Teachers
   4. GSEB (Gujarat Secondary Education Board), CBSE (Central Board of Secondary Education) and CISCE (Council of Indian School Certificate Examinations) schools

**Population**

All STD IX and X class students studying in English Medium Schools of Gujarat State constitute the population of the study.

**Sample**

Out of 30 districts of Gujarat state, 15 districts were randomly selected for collecting data from 4417 students. In case of up to 2 sections of the same class, one section of each standard i.e. IX and X was taken in the sample. In case of more than two sections i.e. 3 or more sections in the...
same standard, two sections were selected randomly through lottery and all the students of those sections were included in the sample and administered Multiple Intelligences Scale to respond.

**RESEARCH METHOD**

It is a survey research, because it assesses the present status of Multiple Intelligences of secondary school students of Gujarat State.

**Research Tool**

**Tool: Multiple Intelligences Scale**

A five point Multiple Intelligences Scale constructed through adopting Likert type scale procedure. Weightage given for scoring was: 5 for Always, 4 for usually, 3 for Sometimes, 2 for Hardly, and 1 for Never. Following steps were followed in its construction.

1) Construction of Items and Finalization of the First Draft
2) Editing, Pre Piloting for Finalization of Second Draft
3) Experts’ feedback
4) Third draft of Multiple Intelligences Scale
5) Piloting and Finalization of Multiple Intelligences Scale

**Data Collection**

After the prior approval of the school authorities, data was collected from different schools. Multiple Intelligences Scale was administered on 4417 students. It required patience and persistence in data collection, as many of the schools did not co operate in the beginning, but finally they consented due to constant efforts and counselling. It required a lot of efforts to convince the schools that the data collected from the schools would be used exclusively for research purpose and no institution or individual results would be drawn, declared and published.

**Data Analysis**

Being a quantitative research, data was inserted in Micro Soft Excel Sheet as per the classification based on hypotheses. It was analyzed with the help of t test.
MAJOR FINDINGS AND DISCUSSION:

FOR OBJECTIVE-1

P1= Either father or mother is working is working to earn money
P2= Both father and mother are working to earn money

Table No: 1. Parents’ Working Status Wise Comparison of Mean, S.D. and C.R. Values of Multiple Intelligences

<table>
<thead>
<tr>
<th>Intelligences</th>
<th>Working Status of Parents</th>
<th>Mean</th>
<th>N</th>
<th>S.D.</th>
<th>SE&lt;sub&gt;D&lt;/sub&gt;</th>
<th>C.R.</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO1 Interpersonal</td>
<td>P1 Children</td>
<td>48.88</td>
<td>3731</td>
<td>6.72</td>
<td>0.279</td>
<td>0.401</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>P2 Children</td>
<td>48.99</td>
<td>686</td>
<td>6.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO2 Intrapersonal</td>
<td>P1 Children</td>
<td>43.84</td>
<td>3731</td>
<td>6.86</td>
<td>0.285</td>
<td>1.86</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>P2 Children</td>
<td>44.37</td>
<td>686</td>
<td>6.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO3 Linguistic</td>
<td>P1 Children</td>
<td>44.65</td>
<td>3731</td>
<td>7.37</td>
<td>0.311</td>
<td>2.38</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>P2 Children</td>
<td>45.39</td>
<td>686</td>
<td>7.52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 4 Logical Mathematical</td>
<td>P1 Children</td>
<td>47.03</td>
<td>3731</td>
<td>7.63</td>
<td>0.322</td>
<td>0.333</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>P2 Children</td>
<td>47.14</td>
<td>686</td>
<td>7.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 5 Naturalist</td>
<td>P1 Children</td>
<td>47.61</td>
<td>3731</td>
<td>7.87</td>
<td>0.333</td>
<td>0.133</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>P2 Children</td>
<td>47.56</td>
<td>686</td>
<td>8.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 6 Spatial</td>
<td>P1 Children</td>
<td>48.19</td>
<td>3731</td>
<td>6.88</td>
<td>0.291</td>
<td>0.907</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>P2 Children</td>
<td>48.46</td>
<td>686</td>
<td>7.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 7 Bodily Kinesthetic</td>
<td>P1 Children</td>
<td>48.34</td>
<td>3731</td>
<td>6.86</td>
<td>0.286</td>
<td>2.08</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>P2 Children</td>
<td>48.94</td>
<td>686</td>
<td>6.90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 8 Musical</td>
<td>P1 Children</td>
<td>47.37</td>
<td>3731</td>
<td>8.70</td>
<td>0.364</td>
<td>0.627</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>P2 Children</td>
<td>47.60</td>
<td>686</td>
<td>8.77</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It was found that children belonging to the family in which both mother and father are working as earning member, were found better in Linguistic Intelligence as well as in Bodily Kinesthetic Intelligence than the children belonging to the family in which either mother or father is only working. It was also drawn from the data that the rest of the intelligences are not affected by the working status of parents.
FOR OBJECTIVE-2
Q1= both or one of the two parents is graduate or higher qualified  
Q2= none of the two parents is graduate

Table No. 2 Parents’ Qualification Wise Comparison of Mean, S.D. and C.R. Values of Multiple Intelligences

<table>
<thead>
<tr>
<th>Intelligence</th>
<th>Parents’ Qualification</th>
<th>Mean</th>
<th>N</th>
<th>S.D.</th>
<th>SED</th>
<th>C.R.</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 9 Interpersonal</td>
<td>Q2 (None Graduate)</td>
<td>48.83</td>
<td>1503</td>
<td>6.77</td>
<td>0.216</td>
<td>0.465</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Q1 (One or both are Graduate or higher qualified)</td>
<td>48.93</td>
<td>2914</td>
<td>6.64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 10 Intrapersonal</td>
<td>Q2 (None Graduate)</td>
<td>43.55</td>
<td>1503</td>
<td>6.74</td>
<td>0.215</td>
<td>2.57</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Q1 (One or both are Graduate or higher qualified)</td>
<td>44.10</td>
<td>2914</td>
<td>6.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 11 Linguistic</td>
<td>Q2 (None Graduate)</td>
<td>44.44</td>
<td>1503</td>
<td>7.48</td>
<td>0.235</td>
<td>2.01</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Q1 (One or both are Graduate or higher qualified)</td>
<td>44.92</td>
<td>2914</td>
<td>7.25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 12 Logical Mathematical</td>
<td>Q2 (None Graduate)</td>
<td>47.77</td>
<td>1503</td>
<td>7.71</td>
<td>0.241</td>
<td>1.50</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Q1 (One or both are Graduate or higher qualified)</td>
<td>49.06</td>
<td>2914</td>
<td>7.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 13 Naturalist</td>
<td>Q2 (None Graduate)</td>
<td>47.72</td>
<td>1503</td>
<td>7.69</td>
<td>0.243</td>
<td>1.14</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Q1 (One or both are Graduate or higher qualified)</td>
<td>47.44</td>
<td>2914</td>
<td>7.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 14 Spatial</td>
<td>Q2 (None Graduate)</td>
<td>48.06</td>
<td>1503</td>
<td>6.80</td>
<td>0.218</td>
<td>1.21</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Q1 (One or both are Graduate or higher qualified)</td>
<td>48.32</td>
<td>2914</td>
<td>6.95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 15 Bodily Kinesthetic</td>
<td>Q2 (None Graduate)</td>
<td>48.52</td>
<td>1503</td>
<td>6.85</td>
<td>0.218</td>
<td>0.557</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Q1 (One or both are Graduate or higher qualified)</td>
<td>48.40</td>
<td>2914</td>
<td>6.88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 16 Musical</td>
<td>Q2 (None Graduate)</td>
<td>46.98</td>
<td>1503</td>
<td>8.88</td>
<td>2.279</td>
<td>2.232</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Q1 (One or both are Graduate or higher qualified)</td>
<td>47.20</td>
<td>2914</td>
<td>8.61</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
It was found that the students belonging to the family of Graduate parents were better than the students belonging to the Non Graduate Parents in **Intrapersonal, Linguistic** and **Musical** Intelligence.

It was also found that the students belonging to the family of Non Graduate parents were not found better than students belonging to the ‘Graduate Parents’ Family in any of the Intelligences. Moreover, it was also drawn that the qualification of parents did not have any effect of Interpersonal, Logical Mathematical, Naturalist, Spatial and Bodily Kinesthetic Intelligence.

**FOR OBJECTIVE-3**

**Table No. 3: Nature of Family Wise Comparison of Mean, S.D. and C.R. Values of Multiple Intelligences**

<table>
<thead>
<tr>
<th>Intelligences</th>
<th>Nature of Family</th>
<th>Mean</th>
<th>N</th>
<th>S.D.</th>
<th>SE&lt;sub&gt;D&lt;/sub&gt;</th>
<th>C.R.</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 17 Interpersonal</td>
<td>Joint Family</td>
<td>48.85</td>
<td>1911</td>
<td>6.79</td>
<td>0.205</td>
<td>0.355</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Nuclear Family</td>
<td>49.93</td>
<td>2506</td>
<td>6.67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 18 Intrapersonal</td>
<td>Joint Family</td>
<td>44.14</td>
<td>1911</td>
<td>6.82</td>
<td>0.209</td>
<td>1.870</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Nuclear Family</td>
<td>43.75</td>
<td>2506</td>
<td>7.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 19 Linguistic</td>
<td>Joint Family</td>
<td>44.75</td>
<td>1911</td>
<td>7.55</td>
<td>0.30</td>
<td>0.111</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Nuclear Family</td>
<td>47.12</td>
<td>2506</td>
<td>7.28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 20 Logical</td>
<td>Joint Family</td>
<td>47.12</td>
<td>1911</td>
<td>7.96</td>
<td>0.235</td>
<td>0.575</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td>Mathematical</td>
<td>Nuclear Family</td>
<td>46.99</td>
<td>2506</td>
<td>7.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 21 Naturalist</td>
<td>Joint Family</td>
<td>47.70</td>
<td>1911</td>
<td>7.99</td>
<td>0.240</td>
<td>0.733</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Nuclear Family</td>
<td>47.52</td>
<td>2506</td>
<td>7.83</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>HO 22 Spatial</td>
<td>Joint Family</td>
<td>48.19</td>
<td>1911</td>
<td>7.02</td>
<td>0.211</td>
<td>0.340</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Nuclear Family</td>
<td>48.26</td>
<td>2506</td>
<td>6.82</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>HO 23 Bodily</td>
<td>Joint Family</td>
<td>48.50</td>
<td>1911</td>
<td>6.92</td>
<td>0.209</td>
<td>0.557</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td>Kinesthetic</td>
<td>Nuclear Family</td>
<td>48.39</td>
<td>2506</td>
<td>6.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 24 Musical</td>
<td>Joint Family</td>
<td>47.23</td>
<td>1911</td>
<td>8.62</td>
<td>0.264</td>
<td>1.125</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>Nuclear Family</td>
<td>47.53</td>
<td>2506</td>
<td>8.77</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
It was found that nature of family did not have any effect on any of the intelligences of students.

**FOR OBJECTIVE-4**

Table No. 4: Sibling Wise Comparison of Mean, S.D. and C.R. Values of Multiple Intelligences

<table>
<thead>
<tr>
<th>Intelligences</th>
<th>Status of Siblings</th>
<th>Mean</th>
<th>N</th>
<th>S.D.</th>
<th>SE&lt;sub&gt;D&lt;/sub&gt;</th>
<th>C.R.</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 25 Interpersonal</td>
<td>Without Siblings</td>
<td>47.73</td>
<td>69</td>
<td>10.34</td>
<td>1.027</td>
<td>0.97</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>With Siblings</td>
<td>48.90</td>
<td>4348</td>
<td>6.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 26 Intrapersonal</td>
<td>Without Siblings</td>
<td>42.29</td>
<td>69</td>
<td>6.54</td>
<td>0.794</td>
<td>2.08</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>With Siblings</td>
<td>43.94</td>
<td>4348</td>
<td>6.81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 27 Linguistic</td>
<td>Without Siblings</td>
<td>43.28</td>
<td>69</td>
<td>7.49</td>
<td>0.012</td>
<td>0.251</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>With Siblings</td>
<td>46.75</td>
<td>4348</td>
<td>7.32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 28 Logical Mathematical</td>
<td>Without Siblings</td>
<td>46.75</td>
<td>69</td>
<td>8.21</td>
<td>0.995</td>
<td>0.255</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>With Siblings</td>
<td>47.00</td>
<td>4348</td>
<td>7.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 29 Naturalist</td>
<td>Without Siblings</td>
<td>47.91</td>
<td>69</td>
<td>7.52</td>
<td>0.913</td>
<td>0.421</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>With Siblings</td>
<td>47.53</td>
<td>4348</td>
<td>7.61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 30 Spatial</td>
<td>Without Siblings</td>
<td>46.59</td>
<td>69</td>
<td>6.54</td>
<td>0.79</td>
<td>2.10</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>With Siblings</td>
<td>48.26</td>
<td>4348</td>
<td>6.91</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 31 Bodily Kinesthetic</td>
<td>Without Siblings</td>
<td>48.872</td>
<td>69</td>
<td>6.62</td>
<td>0.804</td>
<td>0.361</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>With Siblings</td>
<td>48.43</td>
<td>4348</td>
<td>6.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HO 32 Musical</td>
<td>Without Siblings</td>
<td>45.16</td>
<td>69</td>
<td>10.00</td>
<td>1.212</td>
<td>1.88</td>
<td>Not Significant at 0.05 level</td>
</tr>
<tr>
<td></td>
<td>With Siblings</td>
<td>47.44</td>
<td>4348</td>
<td>8.68</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
It was found that student ‘with siblings’ were better in Intra personal Intelligence and Spatial Intelligence whereas having or not having siblings did not have any effect on the rest of the intelligences.

**DISCUSSION**

Major findings of the present study are discussed in the context of previous researches to understand and reflect upon the drawn inferences more intensively and realistically.

**Working Status of Parents**

It was found that the children belonging to the family, in which both mother and father are working, were found better in **Linguistic** intelligence and bodily kinesthetic intelligence than children belonging to the family in which only one of the parents is working. Rest of the intelligences including logical mathematical, interpersonal, intrapersonal, bodily kinesthetic, spatial, musical and naturalist intelligence were not affected by working status of the parents. But, Patel (2014) and Govindan (2014), found that **Intrapersonal** intelligence was higher in the students of both working parents than single working parents.

**Parents’ Qualification**

It was found that the students belonging to the family of Graduate parents were better than the students belonging to the Non Graduate Parents in **Linguistic** intelligence. This finding was supported by Patel (2014) and Govindan (2014). But, the present study also inferred that the students belonging to the family of Graduate parents were better than the students belonging to the Non Graduate Parents in **Intrapersonal** intelligence. Although, no study was found confirming or contradicting this finding of the present study. It was also found that the students belonging to the family of Graduate parents were better than the students belonging to the Non Graduate Parents in **Musical** intelligence. Rest of the intelligences was not affected by qualification of the parents. But, Govindan (2014), found that Bodily kinesthetic, Linguistic, Logical Mathematical were higher in the students belonging to the family of Graduate parents than Non Graduate parents.

**Joint family and nuclear family**

It was found that the nature of family did not have any effect on any of the intelligences of students. Although, researcher expected that nature of family affects the socialization of a child and many other attributes of the personality that did not found matching. But Govindan (2014), contradicted these findings and found that intrapersonal intelligence of students belonging to joint family was more compared to nuclear family students.

**Staying With and Without Siblings**

It was found that the students ‘with sibling’ were better in **Intrapersonal** intelligence than students ‘without siblings’. This finding was contradicted by Govindan (2014) and found reverse
result. It was also found that the students ‘with sibling’ were better in **Spatial** intelligence than students ‘without siblings’. Govindan (2014) and Patel (2014) did not find any effect of siblings on spatial intelligence of students. The rest of the intelligences were not found affected by status of with and without siblings of the students.

As a researcher looking at the findings it can be concluded that the environment affects the level of various intelligences of learners. Hence, proper steps taken, can help to enhance the intelligences of learners. Teachers should identify the intelligence tendencies of the learners and should offer variety in teaching learning experiences to address the need of learners with different potential.

**REFERENCES**


Gogebakan, D. (2003), How Students’ Multiple Intelligences differ in terms of Grade level and Gender, Middle East: An unpublished M.Sc. Dissertation, Middle East: Middle East Technical University.


Effect of Family Variables on Multiple Intelligences of Secondary School Students of Gujarat State


Loori, A. (2005), Multiple Intelligences : A Comparative Study Between the Preferences of Male and Females, Baherin: Arabian Gulf University


Razmjoos, S. (2008), Study the relationship between Multiple Intelligences and language proficiency, An unpublished thesis, Iran: Shiraj University

Rozario & BotelHO (2003), Multiple Intelligences theory in English Language Teaching (ELT): An analysis of current textbooks, materials and teachers’ perceptions, Ohio: An unpublished M.A. Dissertation of Ohio University


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