CHAPTER V

ANALYSIS AND INTERPRETATION OF DATA

We have discussed in Chapter IV the obtained data regarding their analysis and interpretation keeping the objective of the investigation in our mind. In this Chapter 'Analysis and interpretation of Data' obtained on different personality factors test and adjustment test separately on 150 Student mothers and 150 non-student mothers are treated statistically for scientific analysis and proper interpretation keeping the objective of the study in mind. The scholastic achievement of 150 children of both the mothers has been investigated through their High School examination results for the purpose.

We have calculated $SE_D$, 't' and $d_F$ as already discussed in Chapter IV of this study. The Analysis and Interpretation of Data have been classified into three classes:

(A) The Personality Factors
(B) The Adjustment Factors
(C) The Scholastic Achievement Factors
(A) The Personality Factor Test

Analysis and Interpretation

(Table - 1)

The Personality Factor - A :-

For Student mothers the mean and S.D. of the scores of Factor A of 16 PF test were found 9.45 and 2.14 respectively. These values were found 9.64 and 2.45 respectively for the same factor of the same test for non-student mothers.

The value of 't' was calculated from these values of means and standard deviations. Thus, the calculated value of 't' was found to be 0.719. The degrees of freedom is 298. Hence, the table values of 't' at 05, 02 and 01 level is 1.97, 2.34 and 2.59 respectively. It is evident from these table values of 't' and calculated value of 't' that the difference in means of the scores of factor A of student and non-student mothers is not significant at any level. Therefore, regarding the factor A of personality it can be concluded that there is no significant difference among Student and non-student mothers.

In other words, it can be said that the trait reserved vs out going is similar among Student and non-student mothers.
The Personality Statistics

(Values of the Personality Factor 'A')

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>( N_1 ) (Number) = 150</td>
<td>( N_2 ) (Number) = 150</td>
</tr>
<tr>
<td>( M_1 ) (Mean) = 9.45</td>
<td>( M_2 ) (Mean) = 9.64</td>
</tr>
<tr>
<td>( \sigma_1 ) (S.D.) = 2.14</td>
<td>( \sigma_2 ) (S.D.) = 2.45</td>
</tr>
</tbody>
</table>

Calculation of \( SE_D \) (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1 - 1} + \frac{\sigma_2^2}{N_2 - 1}}
\]

\[
= \sqrt{\frac{(2.14)^2}{150 - 1} + \frac{(2.45)^2}{150 - 1}}
\]

\[
= \sqrt{\frac{4.58}{149} + \frac{6.0}{149}}
\]

\[
= \sqrt{.03 + .04}
\]

\[
= \sqrt{.07}
\]

\[
= .264
\]

Calculation of value of 't'

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{9.64 - 9.45}{.264}
\]

\[
= \frac{.19}{.264}
\]

\[
= .719
\]
The Personality Statistics

(Table - 1)

Mean S.D. and 't' values of Factor A of personality of Student-mothers and non-student mothers

(Sample size 150 each)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_D</th>
<th>Calculated value of 't'</th>
<th>D.f.</th>
<th>Table value of 't' at 05 Level</th>
<th>Table value of 't' at 02 Level</th>
<th>Table value of 't' at 01 Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student-mothers</td>
<td>9.45</td>
<td>2.14</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student</td>
<td>9.64</td>
<td>2.45</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>mothers</td>
<td></td>
<td></td>
<td></td>
<td>0.264</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is not significant.
Analysis and Interpretation
(Table - 2)

Personality Factor - B :-

The mean and the standard deviation of Student mother group were found to be 7.03 and 2.44 respectively. Similarly, the mean and standard deviation, for non-student mother group were calculated, which were to be 7.09 and 2.08 respectively.

On the basis of these values, the difference of mean was found to be 0.06 and the standard error of difference of mean was found to be 0.258. These values of difference of mean and standard error of difference of mean gave a value of 0.232 to critical ratio.

The difference of mean was not found to be 0.232 time to the standard error of the difference of mean. It was lesser than 1.92 having difference insignificance at 05 level. The value of the degree of freedom was found to be 298. It shows that there is no significant difference among student and non-student mothers regarding B personality Factor.

On the basis of above discussion, it can be said that the trait less intelligent vs more intelligent is similar among student and non-student mothers.
The personality Statistics
(Values of the Personality Factor 'B')

<table>
<thead>
<tr>
<th>Student Mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>( N_1 ) (Number) = 150</td>
<td>( N_2 ) (Number) = 150</td>
</tr>
<tr>
<td>( M_1 ) (Mean) = 7.03</td>
<td>( M_2 ) (Mean) = 7.09</td>
</tr>
<tr>
<td>( \sigma_1 ) (S.D.) = 2.44</td>
<td>( \sigma_2 ) (S.D.) = 2.08</td>
</tr>
</tbody>
</table>

Calculation of \( SE_D \) (The combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(2.44)^2}{150-1} + \frac{(2.08)^2}{150-1}}
\]

\[
= \sqrt{\frac{5.95}{149} + \frac{4.32}{149}}
\]

\[
= \sqrt{.039 + .028}
\]

\[
= \sqrt{.067}
\]

\[
= .258
\]

Calculation of Value of 't'

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{7.09 - 7.03}{.258}
\]

\[
= \frac{.06}{.258}
\]

\[
= .232
\]
<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>S.E.D</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 0.05</th>
<th>0.02</th>
<th>0.01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student-mothers</td>
<td>7.03</td>
<td>2.44</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>7.09</td>
<td>2.08</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>.258</td>
<td>0.232</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in means is not significant.
Analysis and Interpretation

(Table - 3)

Personality Factor - C :-

The data regarding Personality Factor C were scored separately on each of the Student mother and non-student mother group of 150 each. Student group were found to be 11.70 and 3.37 respectively and those of non-student group was calculated 11.65 and 3.37 respectively.

On the basis of the above values, the difference of mean was found to be .05 and standard error difference of mean was found to be 0.387. These values of difference of mean and standard error of mean gave a value of 0.129 as critical ratio. The value of the ratio of difference of means and standard error of difference of mean was not found to be 0.129 time to the standard error of the difference of mean showed the difference insignificant at 05 level. The value of the degree of freedom was 298. As regard the factor C of personality there is no significant difference among student and non-student mothers.

On the basis of the above discussion, it can also be said that the trait affected by feelings vs emotionally stable is similar among student and non-student mothers.
The Personality Statistics
(Values of the Personality Factor 'C')

<table>
<thead>
<tr>
<th>Student Mothers</th>
<th>Non-student Mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>N₁ (Number) = 150</td>
<td>N₂ (Number) = 150</td>
</tr>
<tr>
<td>M₁ (Mean) = 11.70</td>
<td>M₂ (Mean) = 11.65</td>
</tr>
<tr>
<td>σ₁ (S.D.) = 3.37</td>
<td>σ₂ (S.D.) = 3.37</td>
</tr>
</tbody>
</table>

Calculation of SE₃ (The combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(3.37)^2}{150-1} + \frac{(3.37)^2}{150-1}}
\]

\[
= \sqrt{\frac{11.3569}{149} + \frac{11.3569}{149}}
\]

\[
= \sqrt{.076 + .076}
\]

\[
= \sqrt{.152}
\]

\[
= .387
\]

Calculation of value of 't'

\[
t_g = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{11.70 - 11.65}{.387}
\]

\[
= \frac{0.05}{.387}
\]

\[
= .129
\]
Table - 3

Mean, S.D. and 't' value of factor C of personality of Student and non-student mothers

(Sample size 150 each)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_D</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 05 Level</th>
<th>Table value of 't' at 02 Level</th>
<th>Table value of 't' at 01 Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student mothers</td>
<td>11.70</td>
<td>3.37</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>11.65</td>
<td>3.37</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td></td>
<td></td>
<td>0.387</td>
<td>0.129</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is not significant.
Analysis and Interpretation
(Table - 4)

The Personality Factor E :-

For student mothers, the mean and standard deviation of the scores of factor E of 16 PF test were found 10.88 and 2.81 respectively. These values were found 11.02 and 2.97 respectively for the same factor of the same test for non-student mothers.

On the basis of the values of means and standard deviation the value of $t$ was calculated and the calculated value of '$t$' was found to be 0.422. The degree of freedom is 298. Hence, the table value of '$t$' at 05, 02 and 01 level was 1.97, 2.34 and 2.59 respectively. From these table values of '$t$' and calculated values of '$t$' it is evident that the difference of means of the scores of Factor E of Student and non-student mothers is not significant at any level. Therefore, as regards the Factor E of personality it can be concluded that there is no significant difference among Student and non-student mothers.
The Personality Statistics

(Values of Personality Factor 'H')

<table>
<thead>
<tr>
<th>Student Mothers</th>
<th>Non-student Mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N_1$ (Number) = 150</td>
<td>$N_2$ (Number) = 150</td>
</tr>
<tr>
<td>$M_1$ (Mean) = 10.88</td>
<td>$M_2$ (Mean) = 11.02</td>
</tr>
<tr>
<td>$\sigma_1$ (S.D.) = 2.81</td>
<td>$\sigma_2$ (S.D.) = 2.97</td>
</tr>
</tbody>
</table>

Calculation of $SE_D$ (The combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(2.81)^2}{150-1} + \frac{(2.97)^2}{150-1}}
\]

\[
= \sqrt{\frac{7.896}{149} + \frac{8.8209}{149}}
\]

\[
= \sqrt{.0529 + .0592}
\]

\[
= \sqrt{.1121}
\]

\[= .331\]

Calculation of the value of 't'

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{11.02 - 10.88}{.331}
\]

\[
= \frac{0.14}{0.331}
\]

\[= .422\]
<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_D</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 05 Level</th>
<th>Table value of 't' at 02 Level</th>
<th>Table value of 't' at 01 Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student mothers</td>
<td>10.88</td>
<td>2.81</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>11.02</td>
<td>2.97</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>0.331</td>
<td>0.422</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is not significant.
Analysis and Interpretation

(Table - 5)

The Personality Factor - F :-

For the student mothers, the Mean and S.D. of the scores of Factor F of 16 PF test were found 11.78 and 3.79 respectively. For non-student mothers these values were 13.03 and 3.26 respectively.

From these values of means and standard deviations the value of 't' was calculated and was found 3.07 which is significant at 05, 02 and 01 levels at degree of freedom 298. Therefore, the null hypothesis can be rejected in this case.

On the basis of the above statistics, it can be concluded that regarding Factor F (happy-go lucky) of 16 PF test its magnitude is higher enough among non-student mothers in comprarison to student mothers. Hence, it is clear that there is significant difference among student and non-student mothers regarding the trait.
The Personality Statistics
(The Values of The Personality Factor F)

<table>
<thead>
<tr>
<th>Student Mothers</th>
<th>Non-student Mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>N_1 (Number) = 150</td>
<td>N_2 (Number) = 150</td>
</tr>
<tr>
<td>M_1 (Mean) = 11.78</td>
<td>M_2 (Mean) = 13.03</td>
</tr>
<tr>
<td>\sigma_1^2 (S.D.) = 3.79</td>
<td>\sigma_2^2 (S.D.) = 3.26</td>
</tr>
</tbody>
</table>

Calculation of \( SE_D \) (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(3.79)^2}{150-1} + \frac{(3.26)^2}{150-1}}
\]

\[
= \sqrt{\frac{14.3641}{149} + \frac{10.6276}{149}}
\]

\[
= \sqrt{0.096 + 0.071}
\]

\[
= \sqrt{0.167}
\]

\[
= 0.406
\]

Calculation of value of 't'

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{13.03 - 11.78}{0.406}
\]

\[
= \frac{1.25}{0.406}
\]

\[
= 3.07
\]
Table - 5
Mean, S.D. and 't' values of factor F of personality of Student and non-student mothers
(Sample Size 150 each)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_D</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at level 0.05</th>
<th>Level 0.02</th>
<th>Level 0.01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student mothers</td>
<td>11.78</td>
<td>3.79</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>13.03</td>
<td>3.26</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>0.406</td>
<td>3.07</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is significant.
Analysis and Interpretation

(Table - 6)

The Personality Factor - G :-

For student mothers, the Mean and the S.D. of scores of Factor G of 16 PF test were found 12.62 and 2.76 respectively. These values were found 12.84 and 2.57 respectively for same factor of the same test for non-student mothers.

On the basis of the values of Mean and the standard deviation the value of 't' was calculated as 0.718. The degree of freedom is 298. So the table value of 't' at 05, 02 and 01 level are 1.97, 2.34 and 2.59 respectively. Now, it is clear from these table value of 't' and calculated value of 't' that the difference in Mean of scores of Factor G of Student and non-student mothers is not significant at any level. Therefore, regarding this Factor G of personality it can be said that no significant difference among student and non-student mothers is noted.
### The Personality Statistics

(The values of The Personality Factor G)

<table>
<thead>
<tr>
<th>Student Mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N_1$ (Number) = 150</td>
<td>$N_2$ (Number) = 150</td>
</tr>
<tr>
<td>$M_1$ (Mean) = 12.62</td>
<td>$M_2$ (Mean) = 12.84</td>
</tr>
<tr>
<td>$\sigma_1$ (S.D.) = 2.76</td>
<td>$\sigma_2$ (S.D.) = 2.57</td>
</tr>
</tbody>
</table>

Calculation of $SE_D$ (The combined S.D.)

$$SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}$$

$$= \sqrt{\frac{(2.76)^2}{150-1} + \frac{(2.57)^2}{150-1}}$$

$$= \sqrt{\frac{7.6176}{149} + \frac{6.6049}{149}}$$

$$= \sqrt{.051 + .044}$$

$$= .095$$

$$= .306$$

Calculation of the value of 't'

$$t = \frac{M_2 - M_1}{SE_D}$$

$$= \frac{2.76 - 2.57}{.306}$$

$$= \frac{.22}{.306}$$

$$= .718$$
Table - 6

Mean, S.D. and 't' values of Factor G of personality of Student and non-student mothers

(Sample size 150 each)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE&lt;sub&gt;D&lt;/sub&gt;</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 05 Level</th>
<th>02 Level</th>
<th>01 Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student mothers</td>
<td>12.62</td>
<td>2.76</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>12.84</td>
<td>2.57</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>0.306</td>
<td>0.718</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is not significant.
Analysis and Interpretation

(Table - 7)

The Personality Factor - H :-

On the basis of statistics for the Student-mothers, the mean and standard deviation of score of factor E of 16 PF test were found 13.71 and 5.44 respectively. These values were found 13.36 and 4.28 respectively for the same factor of the same test for non-student ladies.

On the basis of the statistical values of means and standard deviation the value of 't' was calculated as 0.620. The degree of freedom is 298. So the table value of 't' at 05, 02 and 01 level is 1.97, 2.34 and 2.59 respectively. From these table and calculated value of 't' it is evident that the difference of mean of the score of factor H (personality) of Student and non-student mothers is not significant at any level. So, it can be concluded that there is no significant difference among student and non-student mothers regarding the factor H or the trait.
The Personality Statistics  
(The values of the Personality Factor H)

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N₁ (Number)</strong></td>
<td>150</td>
</tr>
<tr>
<td><strong>M₁ (Mean)</strong></td>
<td>13.71</td>
</tr>
<tr>
<td><strong>S₁ (S.D.)</strong></td>
<td>5.44</td>
</tr>
</tbody>
</table>

Calculation of \( SE_D \) (The Combined S.D.)

\[
SE_D = \sqrt{\frac{S₁^2}{N₁-1} + \frac{S₂^2}{N₂-1}}
\]

\[
= \sqrt{\frac{(5.44)^2}{150-1} + \frac{(4.28)^2}{150-1}}
\]

\[
= \sqrt{\frac{29.5936}{149} + \frac{18.3184}{149}}
\]

\[
= \sqrt{.198 + .122}
\]

\[
= \sqrt{.320}
\]

\[
= .564
\]

Calculation of Value of 't'

\[
t = \frac{M₂ - M₁}{SE_D}
\]

\[
= \frac{13.71 - 13.36}{.564}
\]

\[
= \frac{.35}{.564}
\]

\[
= .620
\]
<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SED</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 05 Level</th>
<th>02 Level</th>
<th>01 Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student mothers</td>
<td>13.71</td>
<td>5.44</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>13.36</td>
<td>4.28</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>0.564</td>
<td>0.620</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is not significant.
Analysis and Interpretation

(Table - 8)

The Personality Factor - I :

The mean and standard deviation of score of Factor I of 16 PF test were found 11.31 and 2.81 respectively. These values were found 11.41 and 2.69 respectively for the same factor of same test for non-student mothers.

On the basis of statistical values of means and standard deviation the value of 't' was calculated and calculated value of 't' was found to be 0.312. The degree of freedom is 298. Hence, the table value of 't' at 05, 02 and 01 level are 1.97, 2.34 and 2.59 respectively. From these table values of 't' and calculated value of 't' it is evident that difference of mean of the score of Factor I of Student and non-student mothers is not significant at any level. Therefore, it can be concluded that there is no significant difference among student and non-student mothers regarding the personality Factor - I.
The Personality Statistics
(The values of The Personality Factor - I)

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>( N_1 ) (Number) = 150</td>
<td>( N_2 ) (Number) = 150</td>
</tr>
<tr>
<td>( M_1 ) (Mean) = 11.31</td>
<td>( M_2 ) (Mean) = 11.41</td>
</tr>
<tr>
<td>( \sigma_1 ) (S.D.) = 2.89</td>
<td>( \sigma_2 ) (S.D.) = 2.69</td>
</tr>
</tbody>
</table>

Calculation of \( SE_D \) (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(2.89)^2}{150-1} + \frac{(2.69)^2}{150-1}}
\]

\[
= \sqrt{\frac{8.3521}{149} + \frac{7.2361}{149}}
\]

\[
= \sqrt{.0560 + .0485}
\]

\[
= \sqrt{.1045}
\]

\[
= .320
\]

Calculation of the value of 't'

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{11.41 - 11.31}{.32}
\]

\[
= \frac{.1}{.32}
\]

\[
= .312
\]
<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_D</th>
<th>Calculated value of t</th>
<th>d.f.</th>
<th>Table value of 't' at</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>05 Level</td>
</tr>
<tr>
<td>Student-mothers</td>
<td>11.31</td>
<td>2.89</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>11.41</td>
<td>2.69</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>0.320</td>
<td>0.312</td>
<td>298</td>
<td>1.97</td>
</tr>
</tbody>
</table>

Conclusion: Difference in means is not significant.
Analysis and Interpretation
(Table - 9)

The Personality Factor - L :-

On the basis of statistical data for Student mothers, the mean and S.D. of the scores of Factor L of 16 PF test were found 9.47 and 2.98 respectively and the same were found 9.37 and 2.59 respectively for the same factor of the same test for non-student mothers.

Keeping the values of mean and standard deviations in mind the value of 't' was calculated as 0.312. The degree of freedom is 298. So, the table value of 't' at 05, 02 and 01 levels are 1.97, 2.34 and 2.59 respectively. It is quite clear from these table value of 't' and calculated value of 't' that the difference in mean of the score of Factor L of Student and non-student mothers is not significant at any level. Therefore, as regards the Factor L of personality it can be concluded that there is no significant difference among Student and non-student mothers groups.
The Personality Statistics
(The values of the Personality Factor -L)

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N_1$ (Number)</td>
<td>$N_2$ (Number)</td>
</tr>
<tr>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>$M_1$ (Mean)</td>
<td>$M_2$ (Mean)</td>
</tr>
<tr>
<td>9.47</td>
<td>9.37</td>
</tr>
<tr>
<td>$\sigma_1$ (S.D.)</td>
<td>$\sigma_2$ (S.D.)</td>
</tr>
<tr>
<td>2.98</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Calculation of $S_E_D$ (The Combined S.D.)

\[
S_E_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(2.98)^2}{150-1} + \frac{(2.59)^2}{150-1}}
\]

\[
= \sqrt{\frac{8.8804}{149} + \frac{6.7081}{149}}
\]

\[
= \sqrt{.059} + .045
\]

\[
= .104
\]

\[
= .320
\]

Calculation of value of 't'

\[
t = \frac{M_2 - M_1}{S_E_D}
\]

\[
= \frac{9.47 - 9.37}{.32}
\]

\[
= \frac{.1}{.32}
\]

\[
= .312
\]
Table - 9

Mean, S.D. and 't' values of Factor L of personality of Student and non-student mothers

( Sample size 150 each )

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_D</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 05 Level</th>
<th>02 Level</th>
<th>01 Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student mothers</td>
<td>9.47</td>
<td>2.98</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>9.37</td>
<td>2.59</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significant values</td>
<td>-</td>
<td>-</td>
<td>0.320</td>
<td>0.312</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in means is not significant.
Analysis and Interpretation

(Table - 10)

The Personality Factor - M :

On the basis of collected data, the personality test was administered as 150 Student-mothers and 150 non-student mothers separately. The mean and the standard deviation of student group were found 11.86 and 2.70 respectively. The same statistical findings for non-student mothers was calculated as 11.77 and 2.58 respectively.

Using these statistical values the difference of mean was found to be 0.9 and the standard error of difference of mean was found to be 0.328. These values of difference of mean and standard error of difference of mean gave a value 0.282 as critical ratio. The value of the ratio of difference of mean and standard error of difference of mean was lesser than 1.97 or in other words the difference of mean was not found to be 0.882 time to the standard error of the difference of mean which showed the difference insignificant at 05 level earlier and the value of the degree of freedom was found to be 298.

On the basis of these statistics it can be concluded that trait containing by personality Factor-M was imaginary among student and non-student mothers.
The Personality Statistics
(The values of The Personality Factor M)

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>( N_1 ) (Number) = 150</td>
<td>( N_2 ) (Number) = 150</td>
</tr>
<tr>
<td>( M_1 ) (Mean) = 11.86</td>
<td>( M_2 ) (Mean) = 11.77</td>
</tr>
<tr>
<td>( \sigma_1 ) (S.D.) = 2.70</td>
<td>( \sigma_1 ) (S.D.) = 2.85</td>
</tr>
</tbody>
</table>

Calculation of \( SE_D \) (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(2.70)^2}{150-1} + \frac{(2.85)^2}{150-1}}
\]

\[
= \sqrt{\frac{7.29}{149} + \frac{8.1225}{149}}
\]

\[
= \sqrt{0.0489 + 0.0545}
\]

\[
= \sqrt{0.1034}
\]

\[
= 0.320
\]

Calculation of value of 't'

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{11.86 - 11.77}{0.320}
\]

\[
= \frac{0.09}{0.320}
\]

\[
= 0.281
\]
### Table - 10

Mean, S.D. and 't' values of Factor M of personality of Student and non-student mothers

( Sample size 150 each )

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_D</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 05</th>
<th>02</th>
<th>01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student mothers</td>
<td>11.86</td>
<td>2.70</td>
<td></td>
<td></td>
<td></td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>11.77</td>
<td>2.85</td>
<td></td>
<td></td>
<td></td>
<td>1.68</td>
<td>2.01</td>
<td>2.28</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is not significant.
Analysis and Interpretation

(Table - 11)

The Personality Factor - N :-

For Student mothers, the mean and standard deviation of score of Factor N of 16 PF test were found 10.64 and 3.26 respectively and these values for non-student mothers were found 10.89 and 2.88 respectively for the same factor of the same test.

The value of 't' was calculated from these values of means and standard deviation and the calculated value of 't' was found to be 0.706. The degree of freedom was 298. So, the table value of 't' at 05, 02 and 01 level is 1.97, 2.34 and 2.59 respectively. From these table values of 't' and calculated value of 't' it is clear that the difference of mean of the score of factor N (personality) of Student and non-student mothers is not significant at any level. Therefore, it can be concluded that there is no significant difference among student and non-student mothers regarding the Factor N among both the groups.
The Personality Statistics
(The values of the Personality Factor N)

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>( N_1 ) (Number) = 150</td>
<td>( N_2 ) (Number) = 150</td>
</tr>
<tr>
<td>( M_1 ) (Mean) = 10.64</td>
<td>( M_2 ) (Mean) = 10.89</td>
</tr>
<tr>
<td>( \sigma_1 ) (S.D.) = 3.26</td>
<td>( \sigma_2 ) (S.D.) = 2.88</td>
</tr>
</tbody>
</table>

Calculation of \( SE_D \) (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(3.26)^2}{150-1} + \frac{(2.88)^2}{150-1}}
\]

\[
= \sqrt{\frac{10.6276}{149} + \frac{8.2944}{149}}
\]

\[
= \sqrt{.071 + .055}
\]

\[
= \sqrt{.126}
\]

\[
= .354
\]

Calculation of the value of \( 't' \)

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{10.89 - 10.64}{.354}
\]

\[
= \frac{.25}{.354}
\]

\[
= .706
\]
(Table -11)

Mean, S.D. and 't' values of Factor N of personality of Student and non-student mothers

(Sample size 150 each)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SED</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 0.05</th>
<th>0.02</th>
<th>0.01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student mothers</td>
<td>10.64</td>
<td>3.26</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>10.89</td>
<td>2.88</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td></td>
<td></td>
<td>0.354</td>
<td>0.706</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in means is not significant.
Analysis and Interpretation

(Table - 12)

The Personality Factor - O :-

In this test for student mothers, the mean and S.D. of the scores of factor of 16 PF test were found 11.48 and 4.18 respectively and the values for non-student mothers were 12.81 and 3.99 respectively for the same factor of the same test.

On the statistical values of means and standard deviations the value of 't' was calculated and found to be 2.829. The degree of freedom is 298. So, the table value of 't' at 05, 02, and 01 level are 1.97, 2.34 and 2.59 respectively. It is evident from these table values of 't' and calculated value of 't' that difference in mean of score of factor 0 of Student and non-student mothers is significant at all level. Or, we may say that as regard the question of Factor 0 (placid vs apprehensive) of 16 PF test its magnitude is higher in non-student mothers in comparison to Student mothers. So, there is significant difference among both the groups of mothers regarding personality Factor 0.
The Personality Statistics
(The values of the Personality Factor 0)

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>( N_1 ) (Number) = 150</td>
<td>( N_2 ) (Number) = 150</td>
</tr>
<tr>
<td>( M_1 ) (Mean) = 11.48</td>
<td>( M_2 ) (Mean) = 12.81</td>
</tr>
<tr>
<td>( \sigma_1 ) (S.D.) = 4.18</td>
<td>( \sigma_2 ) (S.D.) = 3.99</td>
</tr>
</tbody>
</table>

Calculation of \( SE_D \) (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(4.18)^2}{150-1} + \frac{(3.99)^2}{150-1}}
\]

\[
= \sqrt{\frac{17.47}{149} + \frac{15.92}{149}}
\]

\[
= \sqrt{\frac{33.39}{149}}
\]

\[
= .22
\]

Calculation of the value of 't'

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{12.81 - 11.48}{.47}
\]

\[
= \frac{1.33}{.47}
\]

\[
= 2.829
\]
Table - 12
Mean, S.D. and 't' values of Factor 0 of personality of Student and non-student mothers
(Sample size 150 each)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE&lt;sub&gt;D&lt;/sub&gt;</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 0.05 Level</th>
<th>0.02 Level</th>
<th>0.01 Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student mothers</td>
<td>11.48</td>
<td>4.18</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>12.81</td>
<td>3.99</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>0.470</td>
<td>2.829</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is significant.
Analysis and Interpretation

(Table - 13)

The Personality Factor - Q4:-

On the basis of statistical data for the Student mothers, the mean and S.D. of the scores of Factor of 16 PF test were found 9.32 and 2.47 respectively and these values were found 9.10 and 2.31 respectively for the same factor of the same test for non-student mothers.

On the basis of these values of means and standard deviations the value of 't' was calculated and found to be 0.95. The degree of freedom was 298. Hence, the table value of 't' at 05, 02 and 01 level are 1.97, 2.34 and 2.59 respectively. It is clear from these table values of 't' and calculated value of 't' that difference in mean of scores of factor Q1 of Student and non-student mothers is significant at 05, 02 and 01 level.

As regard the question of factor Q1 (conservative vs experimenting) of 16 PF test its magnitude is in higher in Student-mothers in comparison to non-student mothers. So, there is significant difference among Student and non-student mothers regarding the personality Factor Q1.
The Personality Statistics
(The values of the Personality Factor $Q_1$)

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N_1$ (Number)</td>
<td>$N_2$ (Number)</td>
</tr>
<tr>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>$M_1$ (Mean)</td>
<td>$M_2$ (Mean)</td>
</tr>
<tr>
<td>9.32</td>
<td>9.10</td>
</tr>
<tr>
<td>$\sigma_1$ (S.D.)</td>
<td>$\sigma_2$ (S.D.)</td>
</tr>
<tr>
<td>2.47</td>
<td>2.31</td>
</tr>
</tbody>
</table>

Calculation of $SE_D$ (The combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(2.47)^2}{150-1} + \frac{(2.31)^2}{150-1}}
\]

\[
= \sqrt{\frac{(2.47)^2}{149} + \frac{(2.31)^2}{149}}
\]

\[
= \sqrt{\frac{6.100}{149} + \frac{5.336}{149}}
\]

\[
= \sqrt{\frac{6.100 + 5.336}{149}}
\]

\[
= \sqrt{\frac{11.436}{149}}
\]

\[
= \sqrt{0.076}
\]

\[
= 0.275
\]

Calculation of the value of $'t'$

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{9.32 - 9.10}{0.275}
\]

\[
= \frac{.22}{.275}
\]
### Table - 13

Mean, S.D. and 't' values of Factor Q1 of personality of Student and non-student mothers

( Sample size 150 each )

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_D</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at Level 0.05</th>
<th>Level 0.02</th>
<th>Level 0.01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student-mothers</td>
<td>9.32</td>
<td>2.47</td>
<td></td>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>9.10</td>
<td>2.31</td>
<td></td>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>0.275</td>
<td>0.80</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in means is significant.
Analysis and Interpretation

(Table - 14)

The Personality Factor - Q2 :

On the basis of statistical data for the Student-mothers, the mean and S.D. of the scores of factor of 16 PF test were found 9.82 and 3.09 respectively and for non-student mothers these values were found 9.07 and 2.56 respectively for the same factor of the same test. From these values of means and standard deviations the value of 't' was calculated and found to be 2.37. The degree of freedom is 298. Hence, the table value of 't' at 05, 02 and 01 level are 1.97, 2.34 and 2.59 respectively. It is evident from these table values of 't' and calculated value of 't' that difference in mean of score of factor Q2 of Student and non-student mothers is significant at 05 and 02 level.

On the basis of analysis, we may interprete that as regard the question of factor Q2 group (dependent vs self sufficient) of 16 PF test its magnitude is higher in Student-mothers in comparison to non-student mothers. So, it is clear that there is significant difference among Student and non-student mothers regarding the personality Factor Q2.
The Personality Statistics
(The values of the Personality Factor $Q_2$)

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N_1$ (Number)</td>
<td>$N_2$ (Number) = 150</td>
</tr>
<tr>
<td>$M_1$ (Mean)</td>
<td>$M_2$ (Mean) = 9.07</td>
</tr>
<tr>
<td>$\sigma_1$ (S.D.)</td>
<td>$\sigma_2$ (S.D.) = 2.56</td>
</tr>
</tbody>
</table>

Calculation of $SE_D$ (The Combined S.D.)

$$SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}$$

$$= \sqrt{\frac{(3.09)^2}{150-1} + \frac{(2.56)^2}{150-1}}$$

$$= \sqrt{\frac{9.54}{149} + \frac{6.55}{149}}$$

$$= \sqrt{\frac{9.54 + 6.55}{149}}$$

$$= \sqrt{\frac{16.09}{149}}$$

$$= \sqrt{.107}$$

$$= 0.316$$

Calculation of the value of 't'

$$t = \frac{M_2 - M_1}{SE_D}$$

$$= \frac{9.82 - 9.07}{0.316}$$

$$= \frac{.75}{0.316}$$

$$= 2.37$$
<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_D</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at Level 0.05</th>
<th>Table value of 't' at Level 0.02</th>
<th>Table value of 't' at Level 0.01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student-mothers</td>
<td>9.82</td>
<td>3.09</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>9.07</td>
<td>2.56</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance value</td>
<td>-</td>
<td>-</td>
<td>0.316</td>
<td>2.37</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in means is significant.
Analysis and Interpretation

(Table - 15)

The Personality Factor Q3 :-

For the Student-mothers, the mean and standard deviation of score of factor Q3 of 16 PF test were found 11.59 and 2.90 respectively and these values for non-student mothers were found 11.57 and 3.59 respectively for the same factor of the same test.

On the basis of statistical data, these values of means and standard deviation the value of 't' was calculated as 0.053. The degree of freedom is 298. So, the table value of 't' at 05, 02 and 01 level is 1.97, 2.34 and 2.59 respectively. From these table values of 't' and calculated value of 't' it is clear that the difference of mean of the score of factor Q3 (personality) of Student and non-student mothers is not significant at any level. As regards the factor Q3 of personality it can be concluded that there is no significant difference among student and non-student mothers.
The Personality Statistics
(The values of the Personality Factor Q3)

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N_1$ (Number)</td>
<td>150</td>
</tr>
<tr>
<td>$M_1$ (Mean)</td>
<td>11.59</td>
</tr>
<tr>
<td>$\sigma_1$ (S.D.)</td>
<td>2.90</td>
</tr>
<tr>
<td>$N_2$ (Number)</td>
<td>150</td>
</tr>
<tr>
<td>$M_2$ (Mean)</td>
<td>11.57</td>
</tr>
<tr>
<td>$\sigma_2$ (S.D.)</td>
<td>3.59</td>
</tr>
</tbody>
</table>

Calculation of $SE_D$ (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(2.90)^2}{150-1} + \frac{(3.59)^2}{150-1}}
\]

\[
= \sqrt{\frac{8.41}{149} + \frac{12.88}{149}}
\]

\[
= \sqrt{\frac{21.29}{149}}
\]

\[
= \sqrt{.142}
\]

\[
= .375
\]

Calculation of the value of 't'

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{11.59 - 11.57}{.375}
\]

\[
= .02
\]

\[
= .053
\]
### Table - 15
Mean, S.D. and 't' values of Factor 03 of personality of Student and non-student mothers
(Sample size 150 each)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE&lt;sub&gt;D&lt;/sub&gt;</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 05 Level</th>
<th>02 Level</th>
<th>01 Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student mothers</td>
<td>11.59</td>
<td>2.90</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>11.57</td>
<td>3.59</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>0.375</td>
<td>0.053</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in means is not significant.
Analysis and Interpretation

(Table - 16)

The Personality Factor Q₄ :-

For the Student mothers, the mean and S.D. of the scores of factor Q₄ of 16 PF test were found 11.09 and 4.05 respectively. These values were found 10.60 and 3.45 respectively for the same factor of the same test for non-student mothers.

The value of 't' was calculated from these values of means and standard deviations and found to be 1.131. The degree of freedom is 298. So, the table value of 't' at 0.05, 0.02 and 0.01 level are 1.97, 2.34 and 2.59 respectively. It is clear from these table values of 't' and calculated value of 't' that difference in mean of score of factor Q₄ of Student and non-student mothers is not significant at 0.05, 0.02 and 0.01 level.

As regards the question of factor Q₄ (relaxed vs tense) of 16 PF test its magnitude is the same in student mothers and non-student mothers.
The Personality statistics
(The values of the Personality Factor \( Q_4 \))

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>( N_1 ) (Number) = 150</td>
<td>( N_2 ) (Number) = 150</td>
</tr>
<tr>
<td>( M_1 ) (Mean) = 11.09</td>
<td>( M_2 ) (Mean) = 10.60</td>
</tr>
<tr>
<td>( \sigma_1 ) (S.D.) = 4.06</td>
<td>( \sigma_2 ) (S.D.) = 3.45</td>
</tr>
</tbody>
</table>

Calculation of \( SE_D \) (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(4.06)^2}{150-1} + \frac{(3.45)^2}{150-1}}
\]

\[
= \sqrt{\frac{16.48}{149} + \frac{11.90}{149}}
\]

\[
= \sqrt{\frac{28.38}{149}}
\]

\[
= \sqrt{0.19}
\]

\[
= 0.435
\]

Calculation of the value of 't'

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{11.09 - 10.60}{0.435}
\]

\[
= \frac{0.49}{0.435}
\]

\[
= 1.131
\]
Table 16

Mean, S.D. and 't' values of Factor 04 of personality of Student and non-student mothers

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE&lt;sub&gt;D&lt;/sub&gt;</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 05 Level</th>
<th>02 Level</th>
<th>01 Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student mothers</td>
<td>11.09</td>
<td>4.06</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>10.60</td>
<td>3.45</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>0.435</td>
<td>1.131</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is significant.
Analysis and Interpretation

(Table - 17)

The Factor of Total Personality:

In the end, we are going to Interpret the total personality of both groups. The mean and standard deviation of score of factor total personality of 16 PF test by Dr. S.D. Kapoor were found 173.79 and 6.26 respectively for Student mothers and these values were found 175.23 and 12.0 respectively for the same factor of same test for non-student mothers.

The value of 't' was calculated on the basis of the values of means and standard deviation the value of 't' was calculated and calculated value of 't' was found to be 1.303. The degree of freedom is 298. So, the table value of 't' at 05, 02 and 01 level are 1.97, 2.34 and 2.59 respectively. From these table values of 't' and calculated value of 't' it is evident that difference of mean of the scores of factor total personality of Student and non-student mothers is not significant at any level. Therefore, as regards total personality it can be interpreted that there is no significant difference among Student and non-student mother groups.
The Personality Statistics  
(The values of the total scores of Personalities)

<table>
<thead>
<tr>
<th></th>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>( N_1 ) (Number)</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>( M_1 ) (Mean)</td>
<td>173.79</td>
<td>175.23</td>
</tr>
<tr>
<td>( \sigma_1 ) (S.D.)</td>
<td>6.26</td>
<td>12.00</td>
</tr>
</tbody>
</table>

Calculation of \( SE_D \) (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(6.26)^2}{150-1} + \frac{(12.00)^2}{150-1}}
\]

\[
= \sqrt{\frac{39.18}{149} + \frac{144.00}{149}}
\]

\[
= \sqrt{\frac{183.18}{149}}
\]

\[
= \sqrt{1.22}
\]

\[
= 1.10
\]

Calculation of the value of 't'

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{175.23 - 173.79}{1.10}
\]

\[
= \frac{1.44}{1.10}
\]

\[
= 1.303
\]
Table - 17
Mean, S.D. and 't' values of total scores of personality of Student and non-student mothers
(Sample size 150 each)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 0.05</th>
<th>0.02</th>
<th>0.01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student mothers</td>
<td>173.79</td>
<td>6.26</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.105</td>
<td>1.303</td>
<td>298</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>175.23</td>
<td>12.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.105</td>
<td>1.303</td>
<td>298</td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>1.105</td>
<td>1.303</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is not significant.
(B) **Adjustment Factors**

**Analysis and Interpretation**

(Table - 1)

**The Adjustment Factor A :-**

On the basis of the statistics for Student mothers, the mean and S.D. of the scores of Factor A adjustment inventory were found 49.57 and 5.89 respectively. These values were found 50.51 and 6.599 respectively for the same factor of the same test for non-student mothers.

The value of 't' was calculated from these values of means and standard deviations. Thus, the calculated value of 't' was found to be 1.305. The degree of freedom is 298. So, the table value of 't' at 05, 02 and 01 level will be 1.97, 2.34 and 2.58 respectively. It is clear from these table values of 't' and calculated value of 't' that the difference in means of the scores of factor A of the Student and non-student mothers is not significant at any level. Therefore, as regards the Factor A of adjustment it can be concluded that there is no significant difference among Student and non-student mothers.
The Adjustment Statistics
(The value of the Adjustment Factor \( A \))

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>( N_1 ) (Number) = 150</td>
<td>( N_2 ) (Number) = 150</td>
</tr>
<tr>
<td>( M_1 ) (Mean) = 49.57</td>
<td>( M_2 ) (Mean) = 50.57</td>
</tr>
<tr>
<td>( \sigma_1 ) (S.D.) = 5.89</td>
<td>( \sigma_2 ) (S.D.) = 6.59</td>
</tr>
</tbody>
</table>

Calculation of \( SE_D \) (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(5.89)^2}{150-1} + \frac{(6.59)^2}{150-1}}
\]

\[
= \sqrt{\frac{34.69}{149} + \frac{43.42}{149}}
\]

\[
= \sqrt{\frac{78.11}{149}}
\]

\[
= \sqrt{0.52}
\]

\[
= 0.72
\]

Calculation of the value of \( t \)

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{50.51 - 49.57}{0.72}
\]

\[
= \frac{0.94}{0.72}
\]

\[
= 1.305
\]
The Adjustment Statistics

(Table -1)

Mean, S.D. and 't' values of Factor A of adjustment of Student and non-
Student-mothers

( Sample size 150 each )

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SED</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 05</th>
<th>02</th>
<th>01</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student-mothers</td>
<td>49.57</td>
<td>5.89</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>50.51</td>
<td>6.599</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significance values</td>
<td></td>
<td></td>
<td></td>
<td>0.72</td>
<td>1.305</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
</tr>
</tbody>
</table>

Conclusion: Difference in means is not significant.
Analysis and Interpretation

(Table -2)

Adjustment Factor B :

For Student mothers, who go to any educational institution, the mean and standard deviation of the scores Factor B (Social Adjustment) of adjustment inventory were found 47.84 and 4.51 respectively and these values were found 47.45 and 3.91 for the same factor of the same test for non-student mothers. From these values of means and standard deviation the value of 't' was calculated. Thus, the calculated value of 't' was found to be 0.802. The degree of freedom is 298. So, the table value of 't' at 05, 02 and 01 level will be 1.97, 2.34 and 2.59 respectively. It is clear from this table value of 't' and calculated value of 't' that the difference in the means of scores of factor B of Student and non-student mothers is not significant at any level.
The Adjustment Statistics
(The values of the Adjustment Factor B)

<table>
<thead>
<tr>
<th></th>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>N₁ (Number)</td>
<td>150</td>
<td>N₂ (Number) = 150</td>
</tr>
<tr>
<td>M₁ (Mean)</td>
<td>47.84</td>
<td>M₂ (Mean) = 47.45</td>
</tr>
<tr>
<td>σ₁ (S.D.)</td>
<td>4.51</td>
<td>σ₂ (S.D.) = 3.91</td>
</tr>
</tbody>
</table>

Calculation of $SE_D$ (The Combined S.D.,)

$$SE_D = \sqrt{\frac{1}{N_1-1} + \frac{1}{N_2-1}}$$

$$= \sqrt{(\frac{(4.51)^2}{150-1} + \frac{(3.91)^2}{150-1})}$$

$$= \sqrt{\frac{20.34}{149} + \frac{15.21}{149}}$$

$$= \sqrt{\frac{35.55}{149}}$$

$$= \sqrt{.238}$$

$$= 0.486$$

Calculation of the value of 't'

$$t = \frac{M_2 - M_1}{SE_D}$$

$$= \frac{47.84 - 47.45}{0.486}$$

$$= \frac{0.39}{0.486}$$

$$= 0.802$$
Table - 2
Mean, S.D. and 't' values of Factor B of adjustment of Student and non-student mothers

( Sample size 150 each )

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_D</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 05</th>
<th>02</th>
<th>01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student-mothers</td>
<td>47.84</td>
<td>4.51</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>47.45</td>
<td>3.91</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>0.486</td>
<td>0.802</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is not significant.
Analysis and Interpretation

(Table - 3)

Adjustment Factor C :-

For Student-mothers studying in any educational institution, the mean and S.D. of the scores of Factor C of adjustment inventory were found 43.37 and 6.65 respectively. For non-student mothers these values were 45.55 and 5.68 respectively.

The value of 't' was calculated from these values of means and standard deviations and were found 3.083. This calculated value of 't' is greater than table values of 't' at 05, 02 and 01 levels of significance and at degree of freedom 298. Therefore, the null hypothesis can be rejected in this case. In other words, it can be said that as regards the question of Factor C (Health and emotional adjustment) of adjustment inventory, its magnitude is in rich quantity among non-student mothers in comparison to student-mothers.
The Adjustment Statistics
(The values of Adjustment Factor C)

<table>
<thead>
<tr>
<th>Student mother</th>
<th>Non-student mother</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N_1$ (Number)</td>
<td>150</td>
</tr>
<tr>
<td>$N_2$ (Number)</td>
<td>150</td>
</tr>
<tr>
<td>$M_1$ (Mean)</td>
<td>43.37</td>
</tr>
<tr>
<td>$M_2$ (Mean)</td>
<td>45.55</td>
</tr>
<tr>
<td>$\sigma_1$ (S.D.)</td>
<td>6.65</td>
</tr>
<tr>
<td>$\sigma_2$ (S.D.)</td>
<td>5.68</td>
</tr>
</tbody>
</table>

Calculation of $SE_D$ (The Combined S.D.)

$$SE_D = \sqrt{\frac{\sigma_1^2}{N_1 - 1} + \frac{\sigma_2^2}{N_2 - 1}}$$

$$= \sqrt{\frac{(6.65)^2}{150 - 1} + \frac{(5.68)^2}{150 - 1}}$$

$$= \sqrt{\frac{42.9}{149} + \frac{32.9}{149}}$$

$$= \sqrt{\frac{75.8}{149}}$$

$$= \sqrt{.503}$$

$$= 0.707$$

Calculation of the value of 't'

$$t = \frac{M_2 - M_1}{SE_D}$$

$$= \frac{45.55 - 43.37}{0.707}$$

$$= 2.18 \cdot \frac{707}{707}$$

$$= 3.083$$
Table - 3

Mean, S.D. and 't' values of Factor C of adjustment of Student and non-student mothers

(Sample size 150 each)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE&lt;sub&gt;D&lt;/sub&gt;</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 05 Level</th>
<th>02 Level</th>
<th>01 Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student-mothers</td>
<td>43.37</td>
<td>6.65</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>45.55</td>
<td>5.68</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>0.707</td>
<td>3.083</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in means is significant.
Analysis and Interpretation

(Table - 4)

Adjustment Factor D :-

For Student mothers who go to any educated Institution for study, the mean and standard deviation of the scores Factor D (School/College adjustment) of adjustment inventory were found 45.69 and 6.18 respectively. These values were found 45.95 and 5.83 for same factor of the same test for non-student mothers who are educated. From these values of means and standard deviation the value of 't' was calculated. Thus the calculated values of 't' was found to be 0.375. The degree of freedom is 298. Hence, the table value of 't' at 05, 02, and 01 level are 1.97, 2.34 and 2.59 respectively. It is clear from these table values of 't' and calculated value of 't' that the difference in the means of scores of factor D of working and non-working ladies is not significant at any level. So, as regard the factor D (School/College adjustment) it can be concluded that there is no significant difference among student and non-student mothers, who are educated.
The Adjustment Statistics
(The value of the Adjustment Factor D)

Student mother             Non-student mother

\( N_1 \) (Number) = 150     \( N_2 \) (Number) = 150

\( M_1 \) (Mean) = 45.69     \( M_2 \) (Mean) = 45.95

\( \sigma_1 \) (S.D.) = 6.18  \( \sigma_2 \) (S.D.) = 5.83

Calculation of \( SE_D \) (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(6.18)^2}{150-1} + \frac{(5.83)^2}{150-1}}
\]

\[
= \sqrt{\frac{38.192}{149} + \frac{33.98}{149}}
\]

\[
= \sqrt{\frac{38.19 + 33.98}{149}}
\]

\[
= \sqrt{\frac{72.17}{149}}
\]

\[
= \sqrt{0.4838}
\]

\[
= 0.692
\]

Calculation of the value of \( 't' \)

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{45.95 - 45.69}{0.692}
\]

\[
= 0.26
\]

\[
= 0.375
\]
Table - 4
Mean, S.D. and 't' values of Factor D of adjustment of Student and non-student mothers
(Sample size 150 each)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE&lt;sub&gt;D&lt;/sub&gt;</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 05 Level</th>
<th>Table value of 't' at 02 Level</th>
<th>Table value of 't' at 01 Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student-mothers</td>
<td>45.69</td>
<td>6.18</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>45.95</td>
<td>5.83</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance value</td>
<td>-</td>
<td>-</td>
<td>0.692</td>
<td>0.375</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is not significant.
Analysis and Interpretation

(Table - 5)

Factor of Total Adjustment :-

For student-mothers going for study to any institution, the mean and standard deviation of the scores factor (Total Adjustment) of adjustment inventory were found 186.47 and 15.65 respectively and these values were found 189.47 and 16.67 for the same factor of the same test for non-student mothers who are educated. From these values of means and standard deviation the value of 't' was calculated. Thus, the calculated values of 't' was found to be 1.608. The degree of freedom is 298. Hence, the table value of 't' at 05, 02 and 01 level are 1.97, 2.34 and 2.59 respectively. It is more clear from these tables, values of 't' and calculated value of 't' that the difference in the means of scores of factor total adjustment of student and non-student mothers is not significant at any level. Therefore, as regard the factor total adjustment it can be interpreted that there is no significant difference among student and non-student educated house wives.
The Adjustment Statistics
(The values of the total of all factors of Adjustment)

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>( N_1 ) (Number) = 150</td>
<td>( N_2 ) (Number) = 150</td>
</tr>
<tr>
<td>( M_1 ) (Mean) = 186.47</td>
<td>( M_2 ) (Mean) = 189.47</td>
</tr>
<tr>
<td>( \bar{S}_1 ) (S.D.) = 15.65</td>
<td>( \bar{S}_2 ) (S.D.) = 16.67</td>
</tr>
</tbody>
</table>

Calculation of \( SE_D \) (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\bar{S}_1^2}{N_1-1} + \frac{\bar{S}_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(15.65)^2}{150-1} + \frac{(16.67)^2}{150-1}}
\]

\[
= \sqrt{\frac{244.92}{149} + \frac{277.88}{149}}
\]

\[
= \sqrt{\frac{244.92 + 277.88}{149}}
\]

\[
= \sqrt{\frac{522.80}{149}}
\]

\[
= \sqrt{3.508}
\]

\[
= 1.865
\]

Calculation of the value of 't'

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{189.47 - 186.47}{1.865}
\]

\[
= \frac{3.00}{1.865}
\]

\[
= 1.608
\]
Table 5

Mean, S.D. and 't' values of total scores of adjustment of Student and non-student mothers

(Sample size 150 each)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_D</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 0.05</th>
<th>0.02</th>
<th>0.01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student-mothers</td>
<td>186.47</td>
<td>15.65</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>189.47</td>
<td>16.67</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance values</td>
<td>-</td>
<td>-</td>
<td>1.865</td>
<td>1.608</td>
<td>298</td>
<td>1.97</td>
<td>2.34</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Conclusion: Difference in Means is not significant.
(C) **Scholastic Achievement Factor**

**Analysis and Interpretation**

**The Scholastic Achievement:**

We draw a remarkable conclusion through the study of table which supplies significant information and goes in favour of educated non-student mother's children achievement. The mean and the standard deviation of scholastic achievement (percentage of marks) were found 61.88 and 11.31 respectively for the children of Student mothers. These values were found 63.91 and 11.03 respectively for the same factor of the children of educated non-student mothers.

The children of the house mothers, who are well educated but not studying gain highest achievement percentage of marks. It clears the point that non-student educated mother's role is more effective in the performance of their children than those of Student mother's role in the educational development of their children.
The Scholastic Achievement Statistics
(The values of Scholastic Achievement by the children)

<table>
<thead>
<tr>
<th>Student mothers</th>
<th>Non-student mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N_1$ (Number)</td>
<td>$N_2$ (Number)</td>
</tr>
<tr>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>$M_1$ (Mean)</td>
<td>$M_2$ (Mean)</td>
</tr>
<tr>
<td>61.88</td>
<td>63.91</td>
</tr>
<tr>
<td>$\sigma_1$ (S.D.)</td>
<td>$\sigma_2$ (S.D.)</td>
</tr>
<tr>
<td>11.31</td>
<td>11.03</td>
</tr>
</tbody>
</table>

Calculation of $SE_D$ (The Combined S.D.)

\[
SE_D = \sqrt{\frac{\sigma_1^2}{N_1-1} + \frac{\sigma_2^2}{N_2-1}}
\]

\[
= \sqrt{\frac{(11.31)^2}{150-1} + \frac{(11.03)^2}{150-1}}
\]

\[
= \sqrt{\frac{127.91}{149} + \frac{121.66}{149}}
\]

\[
= \sqrt{\frac{249.57}{149}}
\]

\[
= 1.55
\]

Calculation of the value of 't'

\[
t = \frac{M_2 - M_1}{SE_D}
\]

\[
= \frac{63.91 - 61.88}{1.55}
\]

\[
= \frac{2.03}{1.55}
\]

\[
= 1.30
\]
Scholastic Achievement Statistics

(Table - 1)

Mean, S.D. and 't' values of percentage of marks obtained by the children of the student and non-student mothers

(Sample size 150 each)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean</th>
<th>S.D.</th>
<th>SE_D</th>
<th>Calculated value of 't'</th>
<th>d.f.</th>
<th>Table value of 't' at 0.05</th>
<th>0.02</th>
<th>0.01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student-mothers</td>
<td>61.88</td>
<td>11.31</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-student mothers</td>
<td>63.91</td>
<td>11.03</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Significance value</td>
<td>-</td>
<td>-</td>
<td>1.30</td>
<td>1.97 2.94 2.59</td>
<td>298</td>
<td>1.97 2.94 2.59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion: Difference of Mean is not significant.