CHAPTER : IV

ANALYSIS OF THE DATA AND RESULTS OF THE STUDY

The detailed analysis of the data is presented in this chapter. The entire analysis of the data was done with respect to the objectives of the study.

STATISTICAL ANALYSIS OF DATA

By means of the training of Yogasana, the information of physical fitness aspects of the students likes 50 Meters Sprint, Standing Broad Jump, Shuttle Run, Shot Put and Sit and Reach Test of the subjects were checked by their test. The groups were selected at random and were dividend two groups. To check the mean differences of the Experimental Group and Control Group, “t” test was taken in consideration.

LEVEL OF SIGNIFICANCE

The level of significance chosen to study the significance by means of “t” test the significance standard was set at 0.05 % level of confidence, which is considered adequate for the purpose of the study.
## TABLE - 1

THE DIFFERENCE OF SIGNIFICANCE FOR MEAN IN PERFORMANCE OF 50 METERS SPRINT OF PRE-TEST AND POST-TEST OF EXPERIMENTAL AND CONTROLLED GROUP

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Mean Difference</th>
<th>“t”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>9.00</td>
<td>8.74</td>
<td>0.26</td>
<td>13.327*</td>
</tr>
<tr>
<td>group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controlled</td>
<td>8.98</td>
<td>8.92</td>
<td>0.06</td>
<td>2.245*</td>
</tr>
<tr>
<td>group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant at 0.05 level (df = 33, tab ‘t’ = 2.0345)

Table 1 reveals that mean of Experimental Group pre test was 9.00 while post test mean was 8.74. The difference between pre and post test means was 0.26 and the calculated ‘t’ value was 13.327 which was higher than the tabulated ‘t’ at 33 degree of freedom 2.0345. Further it reveals that there was a significant difference between pre test mean and post test mean in Experimental Group.

Further the table reveals that mean of Controlled Group pre test was 8.98 while post test mean was 8.92. The difference between pre and post test means was 0.06 and the calculated ‘t’ value was 2.245 which was higher
than the tabulated ‘t’ value at 33 degree of freedom which 2.0345. Further it reveals that there was a significant difference between pre test mean and post test mean in Controlled Group.

Figure – 1

GRAPHICAL REPRESENTATION OF MEAN SCORES OF 50METERS SPRINT PERFORMANCE DURING PRE AND POST TEST OF EXPERIMENTAL AND CONTROLLED GROUP
**TABLE - 2**

**THE DIFFERENCE OF SIGNIFICANCE FOR MEAN IN PERFORMANCE OF STANDING BROAD JUMP OF PRE-TEST AND POST-TEST OF EXPERIMENTAL AND CONTROLLED GROUP**

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Mean Difference</th>
<th>“t”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>1.68</td>
<td>1.73</td>
<td>0.05</td>
<td>7.073*</td>
</tr>
<tr>
<td>Controlled group</td>
<td>1.67</td>
<td>1.67</td>
<td>0.00</td>
<td>0.324</td>
</tr>
</tbody>
</table>

Significant at 0.05 level \((\text{df} = 33, \text{tab} \text{ ‘t’} = 2.0345)\)

Table 2 reveals that mean of Experimental Group pre test was 1.68 while post test mean was 1.73. The difference between pre and post test means was 0.05 and the calculated ‘t’ value was 7.073 which was less than the tabulated ‘t’ value at 33 degree of freedom 2.0345. Further it reveals that there was no significant difference between pre test mean and post test mean in Experimental Group.

Further table reveals that mean of Controlled Group pre test was 1.67 while post test mean was 1.67. The difference between pre and post test means was 0.00 and the calculated ‘t’ value was 0.324 which was less than
the tabulated ‘t’ value at 33 degree of freedom 2.0345. Further it reveals that there was no significant difference between pre test mean and post test mean in Controlled Group.

Figure – 2

GRAPHICAL REPRESENTATION OF MEAN SCORES OF STANDING BROAD JUMP PERFORMANCE DURING PRE AND POST TEST OF EXPERIMENTAL AND CONTROLLED GROUP
**TABLE - 3**

**THE DIFFERENCE OF SIGNIFICANCE FOR MEAN IN PERFORMANCE OF SHUTTLE RUN OF PRE-TEST AND POST-TEST OF EXPERIMENTAL AND CONTROLLED GROUP**

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Mean Difference</th>
<th>“t”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>10.68</td>
<td>10.25</td>
<td>0.43</td>
<td>9.172*</td>
</tr>
<tr>
<td>Controlled group</td>
<td>10.77</td>
<td>10.70</td>
<td>0.07</td>
<td>2.319*</td>
</tr>
</tbody>
</table>

Significant at 0.05 level

(df = 33, tab ‘t’ = 2.0345)

Table 3 reveals that mean of Experimental Group pre test was 10.68 while post test mean was 10.25. The difference between pre and post test means was 0.43 and the calculated ‘t’ value was 9.172 which was higher than the tabulated ‘t’ value at 33 degree of freedom 2.0345. Further it reveals that there was significant difference between pre test mean and post test mean in Experimental Group.

Further the table reveals that mean of Controlled Group pre test was 10.77, while post test mean was 10.70. The difference between pre and post test means was 0.07 and the calculated ‘t’ value was 2.318 at which was
higher than the tabulated ‘t’ value 33 degree of freedom 2.0345. Further it reveals that there was significant difference between pre test mean and post test mean in Controlled Group.

Figure– 3

GRAPHICAL REPRESENTATION OF MEAN SCORES OF SHUTTLE RUN PERFORMANCE DURING PRE AND POST TEST OF EXPERIMENTAL AND CONTROLLED GROUP
TABLE - 4

THE DIFFERENCE OF SIGNIFICANCE FOR MEAN IN
PERFORMANCE OF SHOT-PUT OF PRE-TEST AND POST-TEST
OF EXPERIMENTAL AND CONTROLLED GROUP

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Mean Difference</th>
<th>“t”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>4.73</td>
<td>4.88</td>
<td>0.15</td>
<td>1.365</td>
</tr>
<tr>
<td>group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controlled</td>
<td>4.73</td>
<td>4.75</td>
<td>0.02</td>
<td>0.507</td>
</tr>
<tr>
<td>group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant at 0.05 level (df = 33, tab ‘t’ = 2.0345)

Table 4 reveals that mean of Experimental Group pre test was 4.73 while post test mean was 4.88. The difference between pre and post test means was 0.15 and the calculated ‘t’ value was 1.365 which was less than the tabulated ‘t’ value at 33 degree of freedom 2.0345. Further reveals that there was no significant difference between pre test mean and post test mean in Experimental Group.

Further table reveals that mean of Controlled Group pre test was 4.73, while post test mean was 4.75. The difference between pre and post test means was 0.02 and the calculated ‘t’ value was 0.507 at 33 degree of freedom.
freedom which was less than the tabulated ‘t’ value 2.0345. Further it reveals that there was no significant difference between pre test mean and post test mean in Controlled Group.

**Figure – 4**

**GRAPHICAL REPRESENTATION OF MEAN SCORES OF SHOT-PUT PERFORMANCE DURING PRE AND POST TEST OF EXPERIMENTAL AND CONTROLLED GROUP**
**TABLE - 5**

**THE DIFFERENCE OF SIGNIFICANCE FOR MEAN IN PERFORMANCE OF SIT AND REACH TEST OF PRE-TEST AND POST-TEST OF EXPERIMENTAL AND CONTROLLED GROUP**

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Mean Difference</th>
<th>“t”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>5.63</td>
<td>7.13</td>
<td>2.50</td>
<td>13.958*</td>
</tr>
<tr>
<td>Controlled group</td>
<td>5.61</td>
<td>5.64</td>
<td>0.03</td>
<td>1.098</td>
</tr>
</tbody>
</table>

Significant at 0.05 level (df = 33, tab ‘t’ = 2.0345)

Table 5 reveals that mean of Experimental Group pre test was 5.63 while post test mean was 7.13. The difference between pre and post test means was 2.50 and the calculated ‘t’ value was 13.958 which was less than the tabulated ‘t’ value at 33 degree of freedom 2.0345. Further it reveals that there was no significant difference between pre test mean and post test mean in Experimental Group.

Further table reveals that mean of Controlled Group pre test was 5.61 while post test mean was 5.64. The difference between pre and post test means was 0.03 and the calculated ‘t’ value was 1.098, which was less than
the tabulated ‘t’ value at 33 degree of freedom 2.0345. Further it reveals that there was no significant difference between pre test mean and post test mean in Controlled Group.

**Figure– 5**

**GRAPHICAL REPRESENTATION OF MEAN SCORES OF SIT AND REACH TEST DURING PRE AND POST TEST OF EXPERIMENTAL AND CONTROLLED GROUP**
FINDINGS OF THE STUDY

The findings of the study revealed that the six weeks yogasana training programme had significantly improved 50 Meters Sprint, Standing Broad Jump, Shuttle Run and Sit and Reach Test of the Experimental Group whereas no improvement in the performance of shot put was seen. This indicates that the postural defected student’s who had undergone yogasana training programme had resulted in bringing about significant changes because the amount and kind of yogasana training were adequate to cause optimal changes.

It was observed from the above findings that six week training programme of yogasana may provide the stretching of muscles which enable to produce the effective movements during the 50 Meters Sprint.

The six week training programme may have effect on the body muscles to increase the explosive strength on lower limb that resulted in performing better in Standing Broad Jump.

Further the results of the study shown that there were significant differences in Shuttle Run as well as Sit and Reach Test pre test and post test observations. These significant differences may due to increasing the stretching ability of muscle fibers and increasing the range of motion around the joints through the yogasana training. The results of the study regarding
the flexibility variable were supported by the study conducted by the K Bharatha and Gopinath\(^1\) and K.K. Asai \(^2\).

While there was no improvement in the performance of shot put through yogasana training as it helped little to improve the power of the muscles.

The researcher was satisfied to mention that the findings have accomplished the purpose for which the study. Thus, if this training programme of yogasana training was performed by the subjects regularly and properly it would benefit to them. Yoga trains both the mind and the body. As Patanjali has stated, yogah cittavriti Nirodhah, controlling the wavering mind was yoga. This control brings about a total education, evolution and development of the human personality which could surely help in the cure of ailments. Regular daily practice of all three parts of this structure of Yoga produce a clear, bright mind and a strong, capable body. What was urgently needed at present it rethinking, re-appraisal and re-orientation of yoga as an integral process of education and a way of life.

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DISCUSSION OF HYPOTHESES

1. The hypothesis stated earlier that there may not be any effect of Yogasanas training on the postural defected student’s on 50 meters sprint performance it has been rejected.

2. The hypothesis stated earlier that there may not be any effect of Yogasanas training on the postural defected student’s on standing broad jump performance it has been rejected.

3. The hypothesis stated earlier that there may not be any effect of Yogasanas training on the postural defected student’s on shuttle run performance it has been rejected.

4. The hypothesis stated earlier that there may not be any effect of Yogasanas training on the postural defected student’s on shot put performance it has been accepted.

5. The hypothesis stated earlier that there may not be any effect of Yogasanas training on the postural defected student’s on sit and reach test performance it has been rejected.