A comparative study of gym training programme for development of physical fitness variables of the Bharati Vidyapeeth Deemed university and Swami Ramanand Teerth Marathwada university students

Sandipraj S Autade and Akshay P Ugale

Abstract
The aim of this study was to find out a Comparative Study of Gym Training Programme for Development of Physical Fitness Variables of the Bharati Vidyapeeth (Deemed to be University) University and Swami Ramanand Teerth Marathwada University Students. The subjects for the research were 40 students (20 students from each university) from Bharati Vidyapeeth (Deemed to be University) University and Swami Ramanand Teerth Marathwada University. Simple random sampling was used to find out a comparative study of gym training programme for development of physical fitness variables of the students. The study showed that there was no significant difference have found in physical fitness variables between Bharati Vidyapeeth (Deemed to be University) University and Swami Ramanand Teerth Marathwada University Students.

Keywords: Gym Training Programme, Physical Fitness Variables: Muscular Endurance, Muscular Strength, Strength Endurance and Flexibility

Introduction
The world of the gym is ever expending with increasing intensity of competition and enlarging scientific studies of human movements. Gym is dynamic in nature and progressive in outlook. In this modern age, exercise has become a basic need for every individual because the sedentary life style of men has reduced the efficiency of humans. The less working capacity of humans has cost many problems like weakness, illness, chronic diseases etc. In past our ancestors were quite healthy & fit. The big reason was that, they had to perform a lot of hard physical activities like running, walking, jumping etc. The environment in past was less polluted. Moreover, they had less stresses in their life. Today it is all opposite, i.e., Physical activity is less, environment is polluted, unhygienic condition exists all around, life is full of stresses, unbalanced diet etc. All these factors have reduced the efficiencies of humans. Today, we desperately require physical fitness not only to improve our abilities but also to improve our health wellness. This will also help to develop healthy environment around us along with community health, thus nation will be benefited. By doing physical fitness programmes we can improve our fitness, wellness & health.

Usually in gym we use term gym training which denote the sense of preparing sports persons for the highest level of performance. But nowadays sports training is not just a term but is very important subject that affects each and every individual who takes up physical activity of gym either for health and fitness or for competition at different level. We can say that a sports training is the overall scientific and systematic channel of preparation of gym person for highest level sports performance gym training also consists of all those learning influences and processes that are aimed at enhancing sports performance.

The gym training is thoroughly systematic. It is very personal to each athlete and based on certain well tested scientific principles. In expert sports training become a magic wand of making people performance to the best of their potential and satisfaction of the trainers. There are on shore in sports training. It is long term phenomena requiring learning process aiming at performance enhancement invite in any of human activity precisely. Precisely, it is methodical...
ways of preparing oneself to achieve some predetermined goals. A soldier trains to fight war, a teacher train to run marathon or play soccer. In each acquisition course, which includes learning practice and testing procedures enabling the trainers to be qualified and competent handle the specific jobs successfully.

**Statement of the Problem:** The purpose of the study was to a Comparative Study of Gym Training Programme for Development of Physical Fitness Variables of the Bharati Vidyapeeth and Swami Ramanand Teerth Marathwada University Students.

**Hypothesis:** There will be significant difference between the physical fitness variables of the students Pre and Post physical fitness training programme.

**Selection of Subject:** Total 20-20 students of two Universities were selected as subjects of the study.

**Criterion measure**

<table>
<thead>
<tr>
<th>Physical Fitness Factor</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength endurance</td>
<td>Squat</td>
</tr>
<tr>
<td>Muscular endurance</td>
<td>Bend Knee Sit-ups</td>
</tr>
<tr>
<td>Muscular Strength</td>
<td>Floor Push-ups</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Sit and Reach</td>
</tr>
</tbody>
</table>

**Selection of test:** Pre-test & post-test was applied on students to measure performance related to Physical Fitness Variables.

**Statistical Technique:** To compare the Study of Gym Training Programme for Development of Physical Fitness Variables of the B.V.D.U. students. In case of S.R.T.M.U. students independent t-test was applied to process the data. The level of significant was set 0.05 level.

**Table 2:** Pre-Test and Post-Test on Strength Endurance (Squat)

<table>
<thead>
<tr>
<th>Group</th>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>DF</th>
<th>MD</th>
<th>T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.V.D.U.</td>
<td>Pre-Test</td>
<td>20</td>
<td>27.45</td>
<td>4.45</td>
<td>0.99</td>
<td>38</td>
<td>2.9</td>
<td>1.07</td>
</tr>
<tr>
<td></td>
<td>Post-Test</td>
<td>20</td>
<td>30.35</td>
<td>4.82</td>
<td>1.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.R.T.M.U.</td>
<td>Pre-Test</td>
<td>20</td>
<td>26.95</td>
<td>3.44</td>
<td>0.76</td>
<td>38</td>
<td>2.6</td>
<td>1.56</td>
</tr>
<tr>
<td></td>
<td>Post-Test</td>
<td>20</td>
<td>29.55</td>
<td>3.46</td>
<td>0.77</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Level of Significance = 0.05 Tabulated-'t' 0.05(38) = 2.021

The calculated ‘t’-test was 1.07 of pre-test and post-test of strength endurance of B.V.D.U. students. In case of S.R.T.M.U. students the calculated ‘t’-test was 1.56 of pre-test and post-test of strength endurance, as the calculated ‘t’-test values of both the universities was higher than the critical value was 2.021 at 0.05 level of significance. There was no significance difference as said in the hypothesis.

**Table 3:** Pre-Test and Post-Test on Muscular Endurance (Bend Knee Sit-Ups)

<table>
<thead>
<tr>
<th>Group</th>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>DF</th>
<th>MD</th>
<th>T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.V.D.U.</td>
<td>Pre-Test</td>
<td>20</td>
<td>27.05</td>
<td>3.94</td>
<td>0.89</td>
<td>38</td>
<td>3.55</td>
<td>6.28*</td>
</tr>
<tr>
<td></td>
<td>Post-Test</td>
<td>20</td>
<td>30.06</td>
<td>5.26</td>
<td>1.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.R.T.M.U.</td>
<td>Pre-Test</td>
<td>20</td>
<td>27.55</td>
<td>2.48</td>
<td>0.55</td>
<td>38</td>
<td>3.35</td>
<td>5.73*</td>
</tr>
<tr>
<td></td>
<td>Post-Test</td>
<td>20</td>
<td>30.09</td>
<td>3.09</td>
<td>0.69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Level of Significance = 0.05 Tabulated-'t' 0.05(38) = 2.021

The calculated t-test was 6.28 of pre-test and post-test of muscular endurance of B.V.D.U. students. In case of S.R.T.M.U. students the calculated ‘t’- test was 5.73 of pre-test and post-test of muscular endurance, as the calculated ‘t’-test values of both the universities was much higher than the critical value was 2.021 at 0.05 level of significance. There was significance difference as said in the hypothesis. This difference occurs due to some of the factors and reasons, such as- fitness level, diet, college practical schedule, proper rest etc.

**Table 4:** Pre-Test and Post-Test on Muscular strength (Floor Push-ups)

<table>
<thead>
<tr>
<th>Group</th>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>DF</th>
<th>MD</th>
<th>T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.V.D.U.</td>
<td>Pre-Test</td>
<td>20</td>
<td>24.85</td>
<td>4.66</td>
<td>1.04</td>
<td>38</td>
<td>4.02</td>
<td>3.27*</td>
</tr>
<tr>
<td></td>
<td>Post-Test</td>
<td>20</td>
<td>29.05</td>
<td>4.59</td>
<td>1.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.R.T.M.U.</td>
<td>Pre-Test</td>
<td>20</td>
<td>24.15</td>
<td>4.75</td>
<td>1.06</td>
<td>38</td>
<td>3.95</td>
<td>3.86*</td>
</tr>
<tr>
<td></td>
<td>Post-Test</td>
<td>20</td>
<td>28.01</td>
<td>4.02</td>
<td>0.09</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Level of Significance = 0.05 Tabulated-'t' 0.05(38) = 2.021

There was significance difference as said in the hypothesis. The calculated ‘t’-test was 3.27 of pre-test and post-test of muscular strength of B.V.D.U. students. In case of S.R.T.M.U. students the calculated ‘t’- test was 3.86 of pre-test and post-test of muscular strength, as the calculated ‘t’-test values of both the universities was higher than the critical value was 2.021 at 0.05 level of significance. This difference occurs due to some of the factors and reasons, such as- fitness level, diet, college practical schedule, proper rest etc.

**Table 5:** Pre-Test and Post-Test on Flexibility (Sit and Reach Test)

<table>
<thead>
<tr>
<th>Group</th>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>DF</th>
<th>MD</th>
<th>T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.V.D.U.</td>
<td>Pre-Test</td>
<td>20</td>
<td>13.25</td>
<td>3.64</td>
<td>0.81</td>
<td>38</td>
<td>1.65</td>
<td>0.177</td>
</tr>
<tr>
<td></td>
<td>Post-Test</td>
<td>20</td>
<td>14.9</td>
<td>4.34</td>
<td>0.97</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.R.T.M.U.</td>
<td>Pre-Test</td>
<td>20</td>
<td>14.4</td>
<td>4.62</td>
<td>1.03</td>
<td>38</td>
<td>0.85</td>
<td>0.789</td>
</tr>
<tr>
<td></td>
<td>Post-Test</td>
<td>20</td>
<td>15.25</td>
<td>4.54</td>
<td>1.02</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Level of Significance = 0.05 Tabulated-'t' 0.05(38) = 2.021

There was significance difference as said in the hypothesis. The calculated ‘t’-test was 0.177 of pre-test and post-test of flexibility of B.V.D.U. students. In case of S.R.T.M.U. students the calculated ‘t’- test was 0.789 of pre-test and post-test of flexibility, as the calculated ‘t’-test values of both the universities was less than the critical value was 2.021 at 0.05 level of significance.

**Discussion of findings**

By keeping in mind, the importance of Gym, Physical Fitness Variables, the researcher has selected an investigated entitled, “A Comparative Study of Gym Training Programme for Development of Physical Fitness Variables of the Bharati Vidyapeeth Deemed University and Swami Ramanand Teerth Marathwada University Students”. Undertaking research in the area of gym, sense and perception is needed and it is important for our daily life activities. So, to compare the physical fitness variables on the B.V.D.U. and S.R.T.M.U. students are the right step, because they are the most important part of our society and nation. Today’s world is very much concern with their personality, quality of Life, perception, senses and living standard but they are not that much concern about the physiological factors of their family and family members. The statistical analysis of data collected on minimum 20-20 students from both the universities. The results of the study attained from the statistical analysis after the application of Mean, Standard Deviation and t- test was that the students of B.V.D.U. and S.R.T.M.U. has
significance difference in muscular endurance and muscular strength and there was no significance in strength endurance and flexibility as compared with the scoring and norms given. From the finding of tables.

Discussion of hypothesis
In the light of finding of this study the hypothesis that the to compare the level of physical fitness variables of B.V.D.U. and S.R.T.M.U. studentsthere was significance difference in muscular endurance and muscular strength and there was no significance in strength endurance and flexibility.

Conclusion
There was a significant difference in muscular endurance (Bend knee sit-ups) and muscular strength (Floor Push-ups) of the before & after the training. There was no significance in strength endurance (Squat) and flexibility (Sit and Reach) before & after the training. The B.V.D.U. and S.R.T.M. University students who were considered as the Physical fitness variables for the study, they undergo a regular training session daily basis for the whole year. Therefore, there was much difference between their whole performance after the training. The duration of training was one month only.

Reference