Effect of yogic and pranayama exercises on endurance of school level students

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Abstract
The present study has been designed to investigate the effects of yogic exercise on agility of school level students. For accomplish the study total 20 students of Rohtak district were randomly selected as sample. The study will be delimited to 8th to 12th class boys only. The study will be delimited to Yoga asana (Tadasana, Trikonasana, Padmasana, Vajrasana, Bhujangasana, Shalabasana, Dhanurasana, Halasana, Chakrasana, Matsayasana) and pranayama exercises (Bhastrika, Kapalbhati, Anulom Vilom, Shitali, Bhramari, Udegeeth). Every training session will be 50 minutes. The training program will be scheduled in the morning between 6.00am to 7.00am. Three yoga expert will be assist the researcher during training session one for yoga asana and pranayamas. Subjects will underwent a 10 minutes warming up and 10 minutes cooling down exercises which includes jogging, stretching, push-ups etc. The experimental period will be delimited to 12 weeks. The training will be delimited to five day in week. The study will be delimited to physical fitness components endurance only. To accomplish the study SPSS version 20 was used to apply all statistical terms and t test was applied to compare the results. The level of significance was set at 0.05. A significant difference was observed between students pre and post score of endurance. That is why hypothesis that “There will be a significant improvement as a result of yoga asana on endurance ability of students” which was formulated earlier was accepted. A positive improvement was finding out on endurance capacity of students.

Keywords: Endurance, 12 minute run and walk, yogic exercises

Introduction
Yoga can help improve your resistance because you can increase resistance at different levels, physical, physiological and mental, according to your specific needs. For example, one of the keys to resistance is to make better use of oxygen. The body depends on oxygen to produce energy during physical activity, so a person with good resistance has a greater ability to supply oxygen to the muscles that use this oxygen during exercise. This is one of the main reasons why an inappropriate person struggles much earlier than someone in better shape, and it is also the reason why an athlete can sometimes overcome the competition of equal talent. The five principles of yoga are relaxation, exercise (asana), pranayama (breath control), nutritious diet, positive thinking and meditation, pranayama are yogic breathing techniques that increase the capacity of the lungs. Pranayama improves the overall performance of the body. The main objective of the study is to find out the effect of yoga asana on endurance ability of students. There will be a significant improvement as a result of yoga asana on endurance ability of students.

Research process and methodology
For accomplish the study total 20 students of Rohtak district were randomly selected as sample. The study will be delimited to 8th to 12th class boys only. The study will be delimited to Yoga Asanas, pranayama and their combinations of exercises. The experimental period will be delimited to 12 weeks. The training will be delimited to five day in week. The study will be delimited to physical fitness components endurance only.

Administration of the test
12 Minutes run/walk
Objective: To measure endurance of the subjects.
Facilities and equipments required: Measuring tape, clapper, cones and stopwatches.

Procedures and scoring: A 400m track will be marked with the help of cones, which will be 40 meters apart. From starting line on signal, the subjects will start running continuously. At the end of the time allotted for the respective tests, a signal will be given where subjects stopped running. The distance covered by individuals in 12 minutes will be their individual score. If any subject stopped running or started walking, his timing will not be considered as the score. In those cases, one more trial will be given.

Statistical method
- The obtained data were analyzed by applying t test in order to determine the effect of yogic exercises on school students of Rohtak.
- The level of significance was set at 0.05.

Table 1: Endurance mean difference between pre and post score of students, (N=total numbers of students)

<table>
<thead>
<tr>
<th>Group statistics</th>
<th>Variable</th>
<th>Group</th>
<th>N</th>
<th>D.F.</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Std. error mean</th>
<th>T value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Endurance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre test</td>
<td></td>
<td>20</td>
<td>38</td>
<td></td>
<td>1915.00</td>
<td>173.88</td>
<td>38.88</td>
<td>2.24*</td>
</tr>
<tr>
<td>Post test</td>
<td></td>
<td>20</td>
<td></td>
<td></td>
<td>2079.25</td>
<td>276.96</td>
<td>61.93</td>
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</tr>
</tbody>
</table>

*Significant at 0.05 level

Table 1 shows ‘t’ value 2.24 The student’s endurance pre mean score was lower than the post mean score. The endurance mean score of students pre test is 1915.00 is lower than the mean score of post-test 2079.25, which shows a significant difference. t value 2.24 is higher than the table value 0.05. So significantly there is a difference between pre and post test score of students in their endurance.

Fig 1: Endurance mean difference between pre and post score of students

Results
A significant difference was observed between students pre and post score of endurance. That is why hypothesis that “There will be a significant improvement as a result of yoga asana on endurance ability of students” which was formulated earlier was accepted. A positive improvement was find out on endurance capacity of students.

References