A Study of Effects of different Pranayama on Educational Achievements

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Abstract: The aim was A Study of Effects of different Pranayama on Educational Achievements. For this research, 120 students of the age 14 to 16 years studying in standard 9 and 10 in Shri R.G Patel High School, Nizar interested in yoga were selected. Their age was verified from the register of the school. After selecting these students 30 sheets of group A anulom vilom Pranayama, 30 sheets of group B Bhramari Pranayama, 30 sheets of group C of Suryabhedan Pranayama and 30 sheets of group D of control group were prepared. After collecting all the sheets, one sheet was picked by a subject, second by another subject. So on and the group was allotted to all the subjects by the lots. Thus, the subjects were divided in three experimental groups and one control group. 30 subjects were kept in each group. This training was held at 7.30 to 8.00 in the morning 5 days in a week for 12 weeks. Criterion measurement for Result. In this research to measure the effect of Pranayama educational achievement the statistical method of variation and co-variation analysis was used. Noteworthy improvement was seen in the educational achievement in comparison with control group. In it much improvement was seen in Anulom Vilom Pranayama.

Introduction:  
There is one belief about Yoga that it is a one kind of exercise. Exercise is performed by the physical movement; if we consider Yoga as an exercise we make the coverage of Yoga in narrow way. Asana and Pranayama can be performed in physical form. But there are many studies in Yoga which are more mental than physical and some are only psychological, therefore to think yoga in a form of exercise is an illusion. So to know the true form of Yoga it is very much necessary to come out of the misleading notions.

Objective of the study:  
The aim was A Study of Effects of different Pranayama on Educational Achievements.

Selection of Subjects  
For this research, 120 students of the age 14 to 16 years studying in standard 9 and 10 in Shri R.G Patel High School, Nizar interested in yoga were selected. Their age was verified from the register of the school.

After selecting these students 30 sheets of group A anulom vilom Pranayama, 30 sheets of group B Bhramari Pranayama, 30 sheets of group C of Suryabhedan Pranayama and 30 sheets of group D of control group were prepared. After collecting all the sheets, one sheet was picked by a subject, second by another subject. So on and the group was allotted to all the subjects by the lots. Thus, the subjects were divided in three experimental groups and one control group. 30 subjects were kept in each group. This training was held at 7.30 to 8.00 in the morning 5 days in a week for 12 weeks.
Criterion Measurement:
Result
Statistical process

In this research to measure the effect of Pranayama educational achievement the statistical method of variation and co-variation analysis was used.

Result of the study:

Table 1
The variant and co-variant analysis of the performance of Educational result test of the three experimental group and one control group

<table>
<thead>
<tr>
<th>Test</th>
<th>Group-A Anulom-Vilom</th>
<th>Group-B Bhramari.</th>
<th>Group-C Surya-Bhedan</th>
<th>Group-D Control-Group</th>
<th>Sum of square</th>
<th>DF</th>
<th>Mean Sum of Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre test Mean</td>
<td>45.986</td>
<td>39.801</td>
<td>42.030</td>
<td>40.548</td>
<td>A 683.942</td>
<td>3</td>
<td>2.427</td>
<td>2.427</td>
</tr>
<tr>
<td></td>
<td>W 10894</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post test Mean</td>
<td>50.805</td>
<td>42.709</td>
<td>44.294</td>
<td>41.695</td>
<td>A 1509.054</td>
<td>3</td>
<td>503.02</td>
<td>4.668*</td>
</tr>
<tr>
<td></td>
<td>W 12235.99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted Mean</td>
<td>46.805</td>
<td>45.060</td>
<td>44.356</td>
<td>43.280</td>
<td>A 190.208</td>
<td>3</td>
<td>63.403</td>
<td></td>
</tr>
<tr>
<td></td>
<td>W 755.012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.565</td>
<td></td>
</tr>
</tbody>
</table>

*Standard of significance at 0.005 level F=(3,116) & (3,115)=2.680

In the table -1 above the statistical data of mean and variant co-variant analysis (ANCOVA) of pre-test and final test are shown. Accordingly in the performance Educational result the F ratio of pre-test mean (Anulom Vilom Pranayama Group= 45.986 Bhramari Pranayama Group = 39.801 Suryabhedan Pranayama = 42.030 and Control Group=40.548) was seen 2.427. Comparing it with its table value (2.680) it is not found significant at 0.05 level. So the division of subjects of experimental group and control group was successful.

F ratio of final test mean (Anulom Vilom Pranayama Group= 50.085, Bhramari Pranayama Group = 42.709, Suryabhedan Pranayama = 44.294 and Control Group = 41.695) was seen 4.768. Comparing it with its table value (2.680) it was found significant at 0.05 level. So the improvement in performance of subject by the training given was proved at significant level. In addition, the f ratio of adjusted means (Anulom Vilom Pranayama Group= 46.807, Bhramari Pranayama Group= 45.060, Suryabhedan Pranayama=44.356 and Control Group=43.280) was seen 9.557. Comparing it with tabular value it was found significant (2.680) at 0.05 level. The difference of four groups of adjusted mean by f ratio is significant. So the significant difference is seen in the effect of the training given to the students. To see the significant differences between final means and to see which experimental training was more effective to the Anulom Vilom Pranayama Group, Bhramari Pranayama Group, Suryabhedan Pranayama, and Control Group the significance was checked with the critical difference of the adjusted means by LSD test. It is shown in Table 1.
Table-2
LSD test of three experimental groups and a control group in the performance of Educational result test

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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</tr>
</thead>
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<tr>
<td>46.807</td>
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<td>44.356</td>
<td>43.280</td>
<td>1.746*</td>
<td>1.309</td>
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<td>46.807</td>
<td>45.060</td>
<td>44.356</td>
<td>43.280</td>
<td>2.450*</td>
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</tr>
<tr>
<td>46.807</td>
<td>45.060</td>
<td>44.356</td>
<td>43.280</td>
<td>3.526*</td>
<td></td>
</tr>
</tbody>
</table>

The level of significance=0.05

In the Table-2 above, the difference between adjusted mean of the three perimental groups and one control group of Educational results test performance is seen clearly. The information regarding mean difference shows the difference between Anulom –Vilom pranayama –Bhramari Pranayama, -Anulom-vilom Pranayama - Surya Bhedan pranayama, Anulom –Vilom pranayama Group – control group, Bhramari pranayama- suryabhedan Pranayama group, Bhramari pranayama -Control group, Surya Bhedan pranayama- control group . Comparing it with the critical difference it becomes easy to understand how much (serially) improvement has taken place in which group. According to table-13, much significant difference is seen in Anulom-Vilom group at (3.526) level. There after Bhramari Pranayama Group shows improvement (1.779). Thereafter Suryabhedan Pranayama shows improvement (1.076) level.

Conclusion:
- Noteworthy improvement was seen in the educational achievement in comparison with control group. In it much improvement was seen in Anulom Vilom Pranayama.

Reference: