

Effect of Yogasana and Minor Games on Upper Body Explosive Strength

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ABSTRACT

The objective of the study was to find out the effect of Yogasana and Minor Games on Upper body Explosive Strength of school going boys. Ninety 5th to 12th standard school going hostel boys of Ever Green Public School in Sabarakantha District, Gujarat were randomly selected. The pre test – post test randomized group design, which consists of two experimental groups (n=30 in each and one control group was used for the study. Equal numbers of subjects were assigned randomly to each groups. Two groups (Yogasana group and Minor games) were served as experimental group on which treatment was assigned and one group was served as control. To find out the comparative effect of Yogasana and Minor Games on Upper body Explosive Strength of school going boys, descriptive Statistics and Analysis of Co-Variance (ANCOVA) were used. Statistical significance was accepted at the 5% level. On the basis of results it is concluded that Yogasana may be effective on Upper body Explosive Strength.

1. Introduction

The history of Yogasana as a physical, mental and spiritual culture goes back to several thousand years before Christ. It is believed that lord Shiva is the founder of yoga and that he created 8,400,000 Asanas which represent the 8,400,000 incarnations that every individual passes through before attaining liberation from the cycle of birth and death. It is believed that by doing all these Asanas in one life-time a person can by-pass the cycle of birth and death and attains liberation. Through the centuries these Asanas have been modified and reduced in number by the great Rishis and yogis and so that there are now no more than a few hundred Asanas known of which only 30 or so are commonly thought of as being useful to modern man. Asanas can be categorized as easy and extremely difficult to do and we have selected those Asanas that are easy to do without taking away any of the benefit of yoga. Exponents of Yoga believe that other exercise systems only have a physically beneficial effect on the body whereas Yogasana result in the development of the physical, mental and spiritual well-being. (Sharma et al., 2004)

2. Objective of the study

The objective of the study was to find out the effect of Yogasana and Minor Games on Upper body Explosive Strength of school going boys.

3. Selection of Subjects

Ninety 5th to 12th standard school going hostel boys of Ever Green Public School in Sabarakantha District, Gujarat were randomly selected.

4. Criterion Measures:

No	Variables	Test	Measures
1	Upper Body Explosive Strength	Medicine Ball Throw	Meters

5. Collection of Data

The data were collected before the start of the experiment (pre test) ie-20 June 2016 and at the end of the training period (post test) ie-14 August 2016 at Ever Green Public School, Panol, Gujarat.

6. Experimental Design:

The pre test – post test randomized group design, which consists of two experimental groups (n=30 in each) and one control group was used for the study. Equal numbers of subjects were assigned randomly to each groups. Two groups (Yogasana group and Minor games) were served as experimental group on which treatment was assigned and one group was served as control.

7. Administration of Training Program

Yogasana and Minor Games training program were administered on experimental groups for the period of eight weeks (56 days) while the control group was undergoing placebo. Before the administration of Yogasana and Minor Games training programs, the selected Motor ability variables tests were administered on both the experimental and control groups to collect pre test data. After the completion of eight weeks of Yogasana and Minor Games training programs again the same selected Motor ability variables tests were conducted to collect the post training data. The training programs of the Yogasana and Minor Games were executed by the researcher himself for everyday a week.

Each experimental session was of 45-90 minutes duration. A week schedule was repeated to the preceding week and the load was adjusted progressively.

The procedure adopted for the adjustment of load was as follows:

1. The load intensity was kept low to moderate in the first week and was increased progressively. In the proceeding weeks the load was moderate to high.
2. The frequency of training was three day in a week.

3. The density was adjusted according to the intensity because it is inversely related to intensity.
4. The repetition and sets were increased progressively from first week to proceeding weeks.
5. The duration of training was 45-90 minutes. For each experimental day.
6. The duration of warm-up was kept fixed eight minutes for minor game and 10 minutes for yogasana.
7. The duration of cool down was kept fixed 5-7 minutes.

8. Statistical Technique for Analysis of Data

To find out the comparative effect of Yogasana and Minor Games on Upper body Explosive Strength of school going boys, descriptive statistics and Analysis of Co-Variance (ANCOVA) were used. Statistical significance was accepted at the 5% level.

Table – 1
Analysis of Co-variance of the Means of two Experimental Groups and one Control Group in Upper body explosive strength

Tests	Mean & Standard Deviation			ANCOVA Table				
	Yogasana Group	Minor Games Group	Control Group	Sources of Variance	Sum of Squares	df	Mean Square	F
Pre	2.851±0.865	2.747±0.786	2.761±0.666	A	0.190	2	0.095	0.157
				W	52.536	87	0.604	
Post	3.543±0.922	3.283±0.780	2.977±0.852	A	4.186	2	2.408	3.303*
				W	63.424	87	0.729	
Adjusted	3.479	3.322	3.022	A	3.545	2	1.772	12.649*
				W	12.051	86	0.140	

* Significant at 0.05 level of significance, A=Among Means variance, W=Within Group variance

F=Ratio needed for significance at 0.05 level of significance = $df(2, 87)$ and $df(2, 86) = 3.072$

The analysis of co-variance for Upper body explosive strength was insignificant in case of pre-test means from which it is clear that the pre-test mean does not differ significantly and that the random assignment of subjects among the groups was quite successful. The post-test means of all the three groups yielded an F -ratio of 3.303 which was significant at 0.05 level of significance. The difference between the adjusted post test means was found significant as the obtained F -ratio was 12.649. The F -ratio needed for significance at 0.05 level of significance was 3.072 at $df(2, 86)$.

Table – 2
Least significant Deference Post Hoc Comparison of Adjustment Means of two Experimental and one Control Group in Relation to Upper body explosive strength

Yogasana Group	Minor Games Group	Control Group	Mean Difference	Critical Difference
3.479	3.322		0.157	0.192
3.479		3.002	0.477*	
	3.322	3.002	0.320*	

* Significant at 0.05 level of significance

The above table reveals that the significant difference was found between Yogasana and Control Group; Minor Games and Control Group, as the mean difference was greater than the critical difference. But no significant difference was found between Yogasana Group and Minor Games Group, as the mean difference was less than the critical difference.

9. Conclusion

On the basis of results it is concluded that Yogasana may be effective on Upper body explosive strength in compare to minor games.

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