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A Study of Effect of Yoga and Aerobic Exercises on Explosive Strength of Leg of School Going Children

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Abstract: *The aim of the research is to study the effects of Yoga and Aerobic exercise on Explosive Strength of Leg of School Going Children. Total 45 students from Gyandhara School, Sadra were selected at the subject. These students were divided into three groups i.e. 15 students in Yoga training group, 15 students in Aerobic exercise training group and 15 students in control group. Explosive Strength of Leg were tested by Standing Broad Jump Test, respectively twice i.e. before and after the particular Eight weeks training. Analysis of Covariance (ANCOVA) was applied at 0.05 level of significance to test the hypothesis. It was observed from the result of the study that both the experimental groups improved significantly in Explosive Strength of Leg due to the particular of Yoga Training and Aerobic Exercise Training.*

Key Words: *Yoga, Aerobic, Explosive Strength of Leg.*

1. INTRODUCTION:

In addition to breathing, hatha yoga utilizes asana or physical postures to bring about flexibility, balance and strength in the body. Each of these postures has a definite form and precise steps for achieving the desired position and for exiting it. These yogic postures have scientifically developed to increase circulation and health in all parts of the body, from the muscular tissues to the glands and internal organs. Yogic postures claim that although hatha yoga can make the body as strong and fit as any exercise program, its real benefits come out because it is a system of maintenance and balance for the whole body. Excepting yogic activities in modern time the aerobic dance is also becoming a popular and rewarding area of specialization for physical educators who wish to render a service by helping young person's to understand their bodies better and to express themselves through rhythmical activity. Aerobic exercise makes the muscle work hard enough to need lots of oxygen but not so hard as to remove the marbling fat, which turn in the most efficient way to change our metabolism so one won't get fat any more.

It should be the goal of every person to get best and proper health. The exercises given in this book are useful for the purpose. Not only that, to keep the body ready for various sports it is useful, that means it is very much useful to develop power, Explosive Power, tolerance power, skill and balance power. With beginning of easy and light exercise the force should be increased slowly day by day, and should go to heavy exercise. The conditions for conditioning of the sports should be carried on without hesitation. Not only that, it also should be seen that keeping in view the movements in these exercises rhythm and tune should be maintained.

2. OBJECTIVE OF RESEARCH:

1. To study effects on Explosive Strength by Yoga training and Aerobic training.

Criterion Measures:

Hypothesis for selected measuring standards given below:

NO	Test	Measuring standards
1	Explosive Strength of Leg	Standing Broad Jump

3. METHOD AND MATERIAL:

Total 45 students from Gyandhara School, Sadra were selected at the subject. These students were divided into three groups i.e. 15 students in Yoga training group, 15 students in Aerobic exercise training group and 15 students in control group. Explosive Strength, were tested by Standing Broad Jump Test, Respectively twice i.e. before and after the particular six weeks training.

3.1 Statistical Analysis:

Analysis of Covariance (ANCOVA) was applied at 0.05 level of significance.

4. RESULT OF THE STUDY:

The result of the study is presented in following tables.

Table 1

Means and Analysis of Covariance of Explosive Strength of Leg Test for Yoga, Aerobic and Control Group

Test	GROUP			ANCOVA TABLE			
	Yoga	Aerobic	Control	Sum of Square	Degree of Freedom	Mean Sum of Square	*'F'*
Pretest Mean & SD	1.827 ± 0.122	1.864 ± 0.135	1.815 ± 0.210	0.019	2	0.009	0.384
				1.085	42	0.025	
Posttest Mean & SD	2.084 ± 0.134	2.038 ± 0.121	1.861 ± 0.145	0.417	2	0.208	11.568*
				0.757	42	0.018	
Adjusted Mean & SD	2.089	2.021	1.873	0.366	2	0.183	19.203*
				0.390	41	0.009	

*** Sig. Level at 0.05 (2,42) = 3.219 & (2,41) = 3.225**

It is observed from table – 1 that the means of Yoga Training Group; Pre-test is 1.827, post-test mean is 2.084 and adjusted mean is 2.089 Aerobic Training Group; Pre-test is 1.864, post-test mean is 2.038 and adjusted mean is 2.021. Control Group; Pre-test is 1.815, post-test mean is 1.861 and adjusted mean is 1.873. The calculated *'F'* value of pre-test means of all the groups is not significant, calculated *'F'* value of post-test means of all the groups is significant and calculated *'F'* value of adjusted means of all the groups is significant.

Table 2

Means and Least Significant Difference of Explosive Strength of Leg Test for Yoga, Aerobic and Control Group

Mean			Mean Different	Critical Different
Yoga	Aerobic	Control		
2.086	2.021		0.067	0.072
2.086		1.873	0.216*	
	2.021	1.873	0.158*	

*** Sig. Level at 0.05**

It is observed from table – 2 that the adjusted means of Yoga Training Group, Aerobic Group and Control Group are 0.067, 0.216 and 0.158 respectively and the Critical Different is 0.072 Mean difference among these groups shows significant difference among Yoga and Aerobic Training Groups, Yoga Training and Control Group, Aerobic Training and Control Group.

5. CONCLUSION:

It was observed from the result of the study that both the experimental groups improved significantly in Explosive Strength of Leg Muscles due to the particular of Yoga Training and Aerobic Exercise Training.

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