EFFECT OF VINYASA SUN SALUTATION ON FLEXIBILITY IN SCHOOL GOING CHILDREN

Diwakar Pal, Ph.D. Scholar,
Lakshmibai National Institute of Physical Education,
Gwalior, M.P., India

ABSTRACT
The Objective of this study was to determine the effects of Vinyasa sun salutation on flexibility in school going children. The subjects for this study were selected from the Vivekananda public school, Gwalior. A total of 30 boys subjects were selected and used as one experimental group (15) and other control group (15). Vinyasa was considered the independent variable and hip joint flexibility was considered the dependent variable. Flexibility was measured in degrees by Goniometer. Training was given 3 times in week; each session scheduled for 45 minutes. The Pre Test Post Test randomize group design was used for this study. Tests were administered before the training program and after the completion of the treatment again test were administered. ANCOVA was used to locate significance effects of Vinyasa on Flexibility in school going children at 0.05 levels of significance. In relation to Flexibility, effect of Vinyasa was found significant.
Keywords: Yoga, Asana, Hip joint and Goniometer.

INTRODUCTION
Practicing yoga and flexibility go hand in hand . For the true benefits of yoga to take place, both sides of the brain need to be worked out. That is why a lot of the yoga poses concentrate on training and using both sides of the body. Basically it comes down to retaining the mind and yoga is the great leveler. You will learn to use both parts of your brain more effectively therefore tuning and realigning everything to work far better than ever before. It will benefit all aspects in your life especially if you are ambitious sport type that likes to get the most out of it that they can.
Astanga Vinyasa Yoga is a ancient system of yoga popularized by K.Pattabhi Jois. Pattabhi Jois began his yoga studies in 1927 at the age of 12, and by 1948 had established an institute for teaching the specific yoga practice known as Astanga yoga. Vinyasa yoga is characterized by a focus on vinyasa or, dynamic connecting posture, that creates a flow between the more static traditional yoga postures. Vinyasa is translated as linking and the system also implies the linking of the movement to the breath. Essentially the breath dictates the movement and the length of time held in the postures. Don't wait for something major to happen to you before you decide to do something about it. That's reactive behavior and that's going to set you back big time, all you have to do is take action now.

METHODS
Selection of Subjects: Thirty (30) boys studying in Vivekananda public school, Gwalior M.P were selected at random as subject of the study and divided in to two groups of 15 subjects each. All subjects were almost from the same socio economic group and were found to be physically fit for the type of programme they were selected. The subjects were divided into two groups (experimental group and control group) at random by drawing the lots. The ages of these subjects range between 14 to 16 years. All of them were taking part in routine physical activity programme as per the classes of the school.

Selection of Variable: On the basis of various literatures on physical variables finding out the related research study and keeping in mind the specific purpose of the study to find out the effect of Vinyasa on the hip joint flexibility. Hip joint Flexibility was measured in degrees by Goniometer.

Experimental Design: Pre-test and post-test randomized group design was employed in the study. The subjects were divided into experimental group and control group. The experimental group was imparted 45 minutes of training of Vinyasa for eight weeks under the supervision and guidance of the scholar. While no training was imparted to control group. At the end of Eight weeks post test was conducted for both the group.

Procedure for Administration of the Test: After randomization selecting the students, they were estimated for their Flexibility for hip joint was measured with help of goniometer in degrees. After collecting the initial data, the subjects were administrated for Eight week training schedule, which was three day per week for duration of 45 mins. Immediately after the training schedule, Flexibility for hip joint was again estimated by goniometer in degrees.

Selection of Vinyasa: Vinyasa was selected for their contribution to enhance stretch ability of muscles and for improving mobility of joints. To finalize the list of vinyasa the scholar consulted expected and studied the related literature also.

Training and Practice of Vinyasa: The training of experimental given in the yoga hall of Vivekananda public school, Gwalior. The students used to report in their sports uniform and practiced vinyasa barefoot. The practice session was conducted for a period of 45 minutes in the morning i.e.8.00 A.M. to 8.45 AM on Monday, Wednesday and Friday for duration of 8 weeks.

Method Applied For the Training Practice of Vinyasa: The vinyasa were taught and the practice session were conducted and supervised by the researcher himself. For teaching purpose, each step was explained and demonstrated before the student performed the same necessary corrections were made, the rest the instruction were given in between succeeding vinyasa.

Statistical Procedure: To find out the significance of difference between different pair means, the 'ANCOVA' was used. The level of significance was set at 0.05.

RESULTS

TABLE NO.1

ANALYSIS OF VARIANCE OF COMPARISON OF MEANS OF EXPERIMENTAL GROUP AND CONTROL GROUP IN FLEXIBILITY OF HIP JOINT (IN DEGREES)

		Sum of Squares	df	Mean Square	F	Sig.
Post Data	Between Groups	333.33	1	333.333	9.273*	.005
	Within Groups	1006.53	28	35.948		
	Total	1339.88	29			
Pre Data	Between Groups	3.33	1	3.333	.104	.749
	Within Groups	893.33	28	31.905		
	Total	896.67	29			

*Significant at 0.05 level $F_{(1, 28)} = 4.20$

In relation to pre test, Table No.1 revealed that the obtained 'F' value of .104 was found to be insignificant at 0.05 level, is case of dynamic balance since this value was found lower than the tabulated value 4.20 at 1, 28 df. In relation to post test, significant difference was found among experimental group and control group pertaining to since 'F' value of was found significant at 0.05 level.

TABLE NO.2

ANALYSIS OF CO-VARIANCE OF COMPARISON OF ADJUSTED POST TEST MEANS OF EXPERIMENTAL GROUP AND CONTROL GROUP INFLEXIBILITY OF HIP JOINT (IN DEGREES)

	Sum of Squares	Df	Mean Square	F	Sig.
Contrast	267.482	1	267.482	107.324*	000
Error	67.292	27	2.492		

*Significant at 0.05 level $F_{(1, 28)} = 4.20$

Table No.2 revealed that the obtained 'F' value of 107.324 was found to be significant at 0.05 level in case of hip joint flexibility, since this value was found higher than the tabulated value 4.20 at 1, 28 df.

DISCUSSION

The research scholar has made an attempt to present the discussion of findings. After collection of data, appropriate statistical analysis was conducted. The research scholar examined the effect of Vinyasa on hip joint flexibility in school going children. The results, in general, support that Vinyasa improve hip joint flexibility among school going children. It was found that the experimental group improved significantly. The rate of improvement was higher for the experimental groups in comparison to the control groups. Finally, results show that the participants who followed the treatment of Vinyasa improved their hip joint flexibility higher than participants in control group.

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