



## Combined Effect of Yoga and Endurance Exercises on Selected Football Performance Variable Among Players

**C.Karthikeyan**

Ph.D Scholar, Thiru. Vi. Ka. Government Arts College & Director of Physical Education, Saranathan College of Engineering, Tiruchirappalli-620 012 Tamil Nadu

**Dr A. Uthirapathy**

Director of Physical Education(SG), Thiru. Vi. Ka. Government Arts College, Tiruvarur Tamil Nadu.

### ABSTRACT

*The purpose of the study was to find out the combined effect of Yoga and Endurance exercises on selected Football performance variables among players. For this study forty five (N=45) men Football players studying various Engineering College in the Zone-XIII affiliated to Anna University, Chennai Tamilnadu, India during the academic year 2011-2012 were selected randomly as subjects. The subjects were divided into three groups of fifteen each (n=15), Group-I underwent Yoga practices (n=15), Group-II underwent Endurance training (n=15) and Group-III underwent Combined Yoga and Endurance training. The training period was limited to twelve weeks. Among various Football Skill, Dribbling only selected as Dependent variable and it was measured through zig zag dribbling test. The dependent variable was assessed prior to and immediately after the training period of 12 weeks. The obtained data from the three experimental groups were analyzed with Analysis of Covariance (ANCOVA). Whenever the 'F' ratio for adjusted post test means was found to be significant, Scheffe's post hoc test was followed to determine which of the paired mean differences was significant. In all the cases 0.05 level of confidence was fixed to test the hypotheses. The results of the study concluded that there was a significant difference among Yoga practices, Endurance training and Combined Yoga and Endurance training on Football dribbling performance among Inter Collegiate Football players, further the results revealed that Combined Yoga and Endurance Training group had significantly improved the selected dependent variable namely Football Dribbling.*

**KEYWORDS : Yoga practices, Endurance training, Football, Dribbling,**

### INTRODUCTION

Football may refer to one of a number of team sports which all involve, to varying degrees, kicking a ball with the foot to score a goal. The most popular of these sports worldwide is association football, more commonly known as just "football" or "soccer".

Football is one of the most popular sports in the world in terms of spectator sports and players participation. It is fast, quick, aggressive and attractive sport. The popularity of Football is constantly on the rise as new generations continue to be fascinated by the sport. Football is considered as a strenuous game because the game demands a high degree of fitness as well as intelligence and alert mind.

Soccer is a game which calls for strenuous, continuous, thrilling action and therefore appeals to the youth of the world. It is one of the world's most popular games comprising of two teams trying to kick or head a ball to opposing goals (Pick, 1952).

Soccer is a game of physical and mental challenges. You must execute skilled movements under generalized conditions of restricted space, limited time, physical and mental fatigue, and opposing players. You must be able to run many miles during a game, mostly at sprint like speed and respond quickly to a variety of rapidly changing situations during play. Finally, you need a thorough understanding of an individual, group and team tactics. Your ability to meet all these challenges determines how well you perform on the soccer field (Luxbacher, 1996).

Yoga defines itself as a science--that is, as a practical, methodical, and systematic discipline or set of techniques that have the lofty goal of helping human beings to become aware of their deepest nature. The goal of seeking to experience this deepest potential is not part of a religious process, but an experiential science of self-study. Religions seek to define what we should believe, while a practical science such as meditation is based on the concrete experience of those teachers and yogis who have previously used these techniques to experience the deepest Self. Yoga does not contradict or interfere with any religion, and may be practiced by everyone, whether they regard themselves as agnostics or members of a particular faith.

Endurance training is quite a broad sweeping term. It's often used interchangeably with terms like "aerobic", "anaerobic",

"strength" and "speed". This section of the website focuses primarily on aerobic endurance conditioning and the various training methods that have been developed to help athletes reach peak aerobic fitness.

Endurance training is important for many sports - not just the pure distance events like running, swimming and cycling for example. While the type and amount of endurance training will change according to the specific demands of the sport, even some traditional strength and power based games demand a solid aerobic base.

### METHODOLOGY

To purpose of this study was to find out the combined effect of Yoga and Endurance exercises on selected Football performance variables among players. For this study forty five (N=45) men Football players studying various Engineering College in the Zone-XIII affiliated to Anna University, Chennai Tamilnadu, India during the academic year 2011-2012 were selected randomly as subjects. The subjects were divided into three groups of fifteen each (n=15), Group-I underwent Yoga practices (n=15), Group-II underwent Endurance training (n=15) and Group-III underwent Combined Yoga and Endurance training. The training period was limited to twelve weeks. Among various Football Skill, Dribbling only selected as Dependent variable and it was measured through Zig-Zag dribbling test. The dependent variable was assessed prior to and immediately after the training period of 12 weeks.

### RESULTS AND DISCUSSION

The data collected data from the three groups prior to and immediately after the training programme on the selected criterion variables were statistically analyzed with Analysis of Covariance (ANCOVA). Whenever the 'F' ratio for adjusted post test means was found to be significant, Scheffe's post hoc test was followed to determine which of the paired mean differences was significant. In all the cases 0.05 level of confidence was fixed to test the hypotheses.

The Analysis of covariance (ANCOVA) on Dribbling of Yoga practices group, Endurance training group and Combined Yoga and Endurance training group have been analyzed and presented in Table -I.

**TABLE - I**  
**ANALYSIS OF COVARIANCE OF THE DATA ON DRIBBLING OF**  
**PRE, POST AND ADJUSTED SCORES OF EXPERIMENTAL GROUPS**

Test	Yoga Practices Group (Group-I) Expt. Group 'A'	Endurance Training Group (Group-II) Expt. Group 'B'	Combined Yoga and Endurance Training Group (Group-III) Expt. Group 'C'	Source of Variance	Sum of Squares	df	Mean Squares	F-ratio
Pre-Test Mean	18.81	18.89	18.88	Between Groups	0.004	2	0.002	0.03
SD	±0.30	±0.04	±0.29	Within Groups	3.91	42	0.09	
Post-Test Mean	18.56	18.45	18.28	Between Groups	0.59	2	0.30	3.75*
SD	±0.29	±0.27	±0.26	Within Groups	3.51	42	0.08	
Adjusted Post-Test Mean	18.45	18.48	18.26	Between Sets	0.69	2	0.35	350.00*
				Within Sets	0.04	41	0.001	

\* Significant at 0.05 level of confidence  
Table value for df (2, 42) at 0.05 level = 3.22 Table value for df (2, 41) at 0.05 level = 3.23

The above table shows that the pre-test mean & standard deviation values on Dribbling of experimental groups 'A', 'B' and 'C' group were 18.81, 18.89 & 18.88 and ±0.30, ±0.04 & ±0.29 respectively. The obtained 'F' ratio of 0.03 for pre-test scores was lesser than the table value of 3.22 for df 2 and 42 required for significance at 0.05 level of confidence on Dribbling.

The post test mean & standard deviation values on Dribbling of experimental groups 'A' and 'B' and 'C' group were 18.56, 18.45 & 18.28 and ±0.29, ±0.27, & ±0.26 respectively. The obtained 'F' ratio of 3.63 for post-test scores was greater than the table value of 3.22 for df 2 and 42 required for significance at 0.05 level of confidence on Dribbling.

The adjusted post-test means on Dribbling of experimental groups 'A' and 'B' and 'C' group were 18.45, 18.48 and 18.26 respectively. The obtained 'F' ratio of 388.36 for adjusted post-test mean was greater than the table value of 3.23 for df 2 and 41 required for significance at 0.05 level of confidence on Dribbling.

The results of the study indicated that there was a significant difference between the adjusted post-test means of Yoga Practices, Endurance training and Combined Yoga and Endurance training group on Dribbling.

Since, three groups were compared, whenever the obtained 'F' ratio for adjusted post test was found to be significant, the Scheffe's test was used to found out the paired mean difference and it was presented in table-II.

**TABLE - II**  
**SCHEFFE'S TEST FOR THE DIFFERENCE BETWEEN PAIRED MEANS ON DRIBBLING**

Yoga Practices Group (Group-I) Expt. Group 'A'	Endurance Training (Group-II) Expt. Group 'B'	Combined Yoga and Endurance Training Group (Group-III) Expt. Group 'C'	Mean Difference	Confident Interval Value
18.45	18.48	---	0.03*	0.03
18.45	---	18.26	0.19*	
---	18.48	18.26	0.22*	

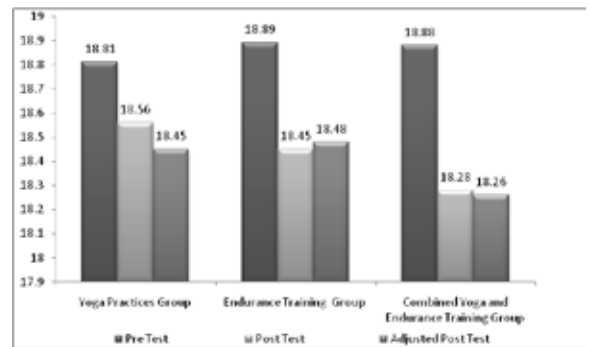
\*Significant at 0.05 level of confidence.

The above table shows that the mean difference values of experimental group 'A' and experimental group 'B', experimental group 'A' and experimental group 'C' group and experimental group 'B' and experimental group 'C' were 0.03, 0.19 and 0.19 respectively, which were greater than the confidence interval value of 0.03 on Dribbling at 0.05 level of confidence. The results of the study showed that there was a significant difference between experimental group 'A' and experimental group 'B', experimental group 'A' and experimental group 'C' group and experimental group 'B' and experimental group 'C'.

The above data also reveals that Combined Yoga and Endurance training group had better Dribbling.

The pre, post and adjusted mean values of Yoga Practices, Endurance training and Combined Yoga and Endurance training group on Dribbling were graphically represented in the Figure -I.

**DRIBBLING IN SECONDS**



**Figure I: Adjusted Post Test Means Values of Yoga Practices Group, Endurance Training Group and Combined Yoga and Endurance Training Group on Dribbling**

**CONCLUSION**

From the analysis of the data, the following conclusions were drawn.

1. The Experimental groups had registered significant improvement on the selected criterion variables namely dribbling.
2. It may be concluded that the Combined Yoga and Endurance Training is better than Yoga practices group and Endurance Training group in improving dribbling.

**REFERENCES**

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