



# EFFECT OF WEIGHT TRAINING ON SELECTED PHYSICAL FITNESS COMPONENTS OF SCHOOL LEVEL FOOTBALL PLAYERS

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## Abstract

The aim of the study was find out the effect of weight training on selected physical fitness components of school level male football players. To achieve the purpose of the study thirty male football players were selected from Little Flower Higher Secondary School, Salem, Tamilnadu. The selected subject's age ranged between 14 and 17 years. They are divided into two equal groups randomly as experimental group I and group II as control group. Each group consists of 15 subjects. The experimental group I underwent to weight training for 6 weeks, 6 days per week. The control group was not doing any kind of special training other than the regular activities. The physical fitness components such as speed, agility, leg explosive power, has been selected and it was measured by 50mts dash, T- run test, standing broad jump, respectively. The pre and post test data has been collected for analysis form prior and after the training period. The collected data were statistically analysed by analysis of covariance (ANCOVA). The level of significance was fixed at 0.05 of confidence to test the hypothesis. The experimental group had shown significant improvement on all selected physical components such as speed, agility and leg explosive power when comparing to the control group.

**Keywords:** Weight Training, Speed, Agility and Leg Explosive Power.

## 1. INTRODUCTION

### Weight Training

Weight training is an efficient training to lose the body weight, body fat, tone the body muscles, and finally improves the overall physical fitness. In addition the lean muscle mass will be enhanced the overall body structure, repair the system and improve strength during the increase the metabolism which enhances the consumption of calories. If strength gains by performing weight training, the joints and muscles will work more effectively together and increase the overall function in areas of balance, stamina, flexibility and prevention of injury ( Mark Dickey 2020).

### Football

Football is referred as soccer in the world and it is a high energy athletic team sport in this modern age. The number of countries of FIFA members even outnumbers the members of United Nations Organizations - another undeniable proof of the game's popularity. Since 1900, football is the integral part of the greatest sports show in the world Olympics. The game has been followed in a feverish fashion in Europe, especially in England, for centuries. In fact, the game attracted different sections of men and women throughout the world. Football is a very fascinating and enjoyable game and every child wants to play it. The only problem in the beginning is that because of wrong technique of the lack of basic skills, there is a fear of injury and frustration in preparation for higher performance (Sharma and Vivek Pandey 2007).

## 2. METHODOLOGY

To achieve the purpose of the study thirty male football players were selected from Little Flower Higher Secondary School, Salem. The selected subject's age ranged between 14 and 17 years. They are divided into two equal groups randomly as experimental group I and group II as control group. Each group consists of 15 subjects. The experimental group I underwent to weight training for 6 weeks, 6 days per week. The training was given in the morning sessions only. The control group was not doing any kind of special training other than the regular activities. The physical fitness components such as speed, agility and leg explosive power has been selected it was measured 50mts dash, T run test and standing broad jump; respectively. The pre and post test data has collected for

analysis form prior and after the training period. The collected data were statistically analysed by analysis of covariance(ANCOVA). The level of significance was fixed at 0.05 of confidence for all the cases.

### 3. RESULTS

**Table I: Computation on Analysis of Covariance on Speed, Agility, Leg Explosive Power of Experimental and Control Groups**

Variables	Test	Weight Training (WTG)	Control Group (CG)	Source of Variance	Sum of Square	df	Mean Squares	'F' Ratio
Speed	Pre Test	8.16	8.06	Between	0.08	2	0.04	0.46
				Within	3.68	42	0.08	
	Post Test	7.86	8.01	Between	0.16	2	0.081	9.16*
				Within	0.37	42	0.009	
	Adjusted Post Test	7.86	8.01	Between	0.16	2	0.084	9.51*
				Within	0.36	42	0.009	
Agility	Pre Test	1.60	1.53	Between	0.03	2	0.01	1.957
				Within	0.38	42	0.009	
	Post Test	2.00	1.61	Between	0.96	2	0.48	60.56*
				Within	0.33	42	0.008	
	Adjusted Post Test	2.01	1.69	Between	0.94	2	0.47	60.70*
				Within	0.32	41	0008	
Leg Explosive Power	Pre Test	20.30	20.83	Between	14.97	2	7.48	2.96
				Within	106.26	42	2.53	
	Post Test	22.20	20.63	Between	59.24	2	29.62	6.41*
				Within	193.86	42	4.61	
	Adjusted Post Test	22.22	20.38	Between	89.32	2	44.66	12.84*
				Within				

\*Significant level 0.05 level of Covariance. The Table Value for df 2 and 42 was 4.21.

Table 2 shows that the pre-test mean value of speed, agility, leg explosive power on experimental group was 8.16, 1.60 and 20.30, and control group 8.06, 1.53, 20.83. The obtained F value 0.46 was lesser then the table value of 4.21 hence it was proved that the randomization of the subject was successful.

The post-test mean values of speed, agility, leg explosive power on experimental group were 7.86, 2.00 and 22.20, and control group 8.01, 1.61 and 20.63. The obtained F value 9.16 was greater than the table value of 4.21. Hence it was proved that there was a no improvement on school level male football players.

The adjusted post-test mean value of speed, agility, leg explosive power on experimental group were 7.86, 2.10 and 22.22, and control group 8.01, 1.69 and 20.38. The obtained F value 9.51 was greater than the table value of 4.21. Hence it was proved that there was a significant improvement on school level male football players.

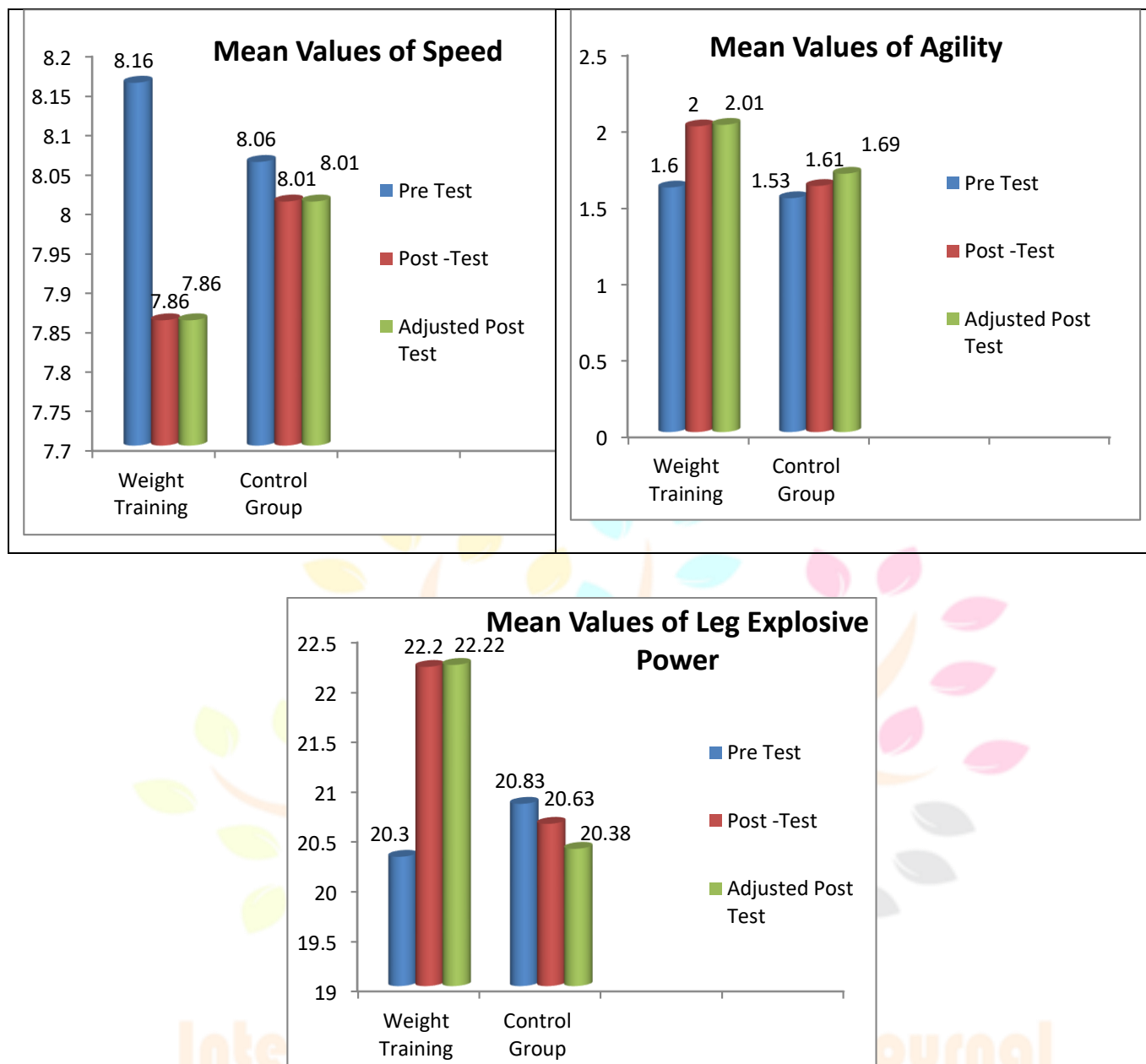


Figure I: 1-3 The Adjusted Mean Value on Speed, Agility and Leg Explosive Power of Experimental and Control Group

**4. Discussion on Findings**

The results of the study reveal that there were significant changes found after the weight training on selected physical fitness components such as speed, agility, leg explosive power of school level male football players. The result of the study is corroboration with the studies of (Raghu and Syam Babu, 2011).

**5. Conclusions**

It was concluded that the six weeks of weight training were significantly improved the selected physical fitness components such as speed, agility, leg explosive power of school level male football players. The control groups were not shown any improvements on all selected physical variables.

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