

EFFECT OF SPEED BASED TRAINING PROGRAM ON SELECTED PHYSICAL FITNESS COMPONENT OF FOOTBALL PLAYERS AND NON PLAYERS

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Abstract:

For this study, forty football players men and forty non players men were selected as subjects. They were selected from Arulmigu Palaniyandavar College of Art and Science and Arulmigu Palaniyandavar Polytechnic College, Palani. The study was formulated as a random group design. The subjects (n=80) were selected to two equal group of forty non players and forty football players each namely, specific experimental group (EMG, Group I), control group (CTG, Group II). The subjects were tested in order to find out physical fitness variables namely speed, muscular endurance, agility, flexibility. The experimental group participated in specific pre season training for period of six weeks. The data was collected before and after training for period of pre test, post test and relationship between the groups were analyzed by 'T' test. The level of significance for the study was chosen as 0.05. The experimental group after the six weeks training significant improvement in speed, muscular endurance, agility, flexibility.

KEYWORDS:

Speed, Muscular endurance, Agility, Flexibility.

INTRODUCTION

Speed is the quickness of movement of a limb, whether this is the legs of a runner or the arm of the shot putter. Speed is an integral part of every sport and can be expressed as any one of, or combination of, the following: maximum speed, elastic strength ([power](#)) and speed endurance. The faster we generate force, the faster we accelerate that's physics pure and simple. Do not make the mistake of assuming low speed strength gains (squats & bench press max gains in the weight room) are going to automatically make you more explosive and bring high speed power gains in competition. Slow moving heavy lifts will develop your ability to generate more force (get you stronger) but they are not optimal for developing your ability to generate force faster. Light load, high speed, explosive training is the optimal way to convert those strength gains in the weight room to power gains and run faster in competition. Use of elastics is a great way to conduct light load, high speed training but conventional elastics have a lot of drawbacks but that's why vertimax was created, to solve those problems and make speed training with elastics much more effective.

METHODOLOGY

For this study, forty football players men and forty non players men were selected as subjects. They were selected from Arulmigu Palaniyandavar College of Art and Science and Arulmigu Palaniyandavar Polytechnic College, Palani. The study was formulated as a random group design. The subjects (n=80) were divided in two equal group of forty non players and forty football players, each namely, specific experimental group (EMG, Group I), control group (CTG, Group II). The subjects were

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tested in order to find out physical fitness variables namely speed, muscular endurance, agility, flexibility. The experimental group participated in specific pre season training for period of six weeks.

TOOLS AND TECHNIQUES

Physical Fitness Variables

1. 50mts run test was used to find out the speed.
2. Muscular endurance test was used to find out the bent knee sit ups.
3. Agility test was used to find out the Illinois agility test.
4. Flexibility test was used to find out the sit and reach test.

RESULT AND STATISTICAL TECHNIQUE

The following statistical procedure were employed to estimate the effect of pre season training on the selected physical fitness variables of experimental group and control group. The data was collected before the training for period of pre test and post test and relationship between the groups were analyzed by 'T' test.

TABLE-I Experimental group (EMG) was analyzed by 'T' test

S.No	EMG		MEAN	CORR	N	'T'
1.	Speed	Pre test	6.97	0.918	40	15.56
		Post test	6.62			
2.	Muscular endurance	Pre test	20.42	0.980	40	40.39
		Post test	32.67			
3.	Agility	Pre test	13.48	0.894	40	9.97
		Post test	12.63			
4.	Flexibility	Pre test	10.30	0.871	40	26.30
		Post test	14.42			

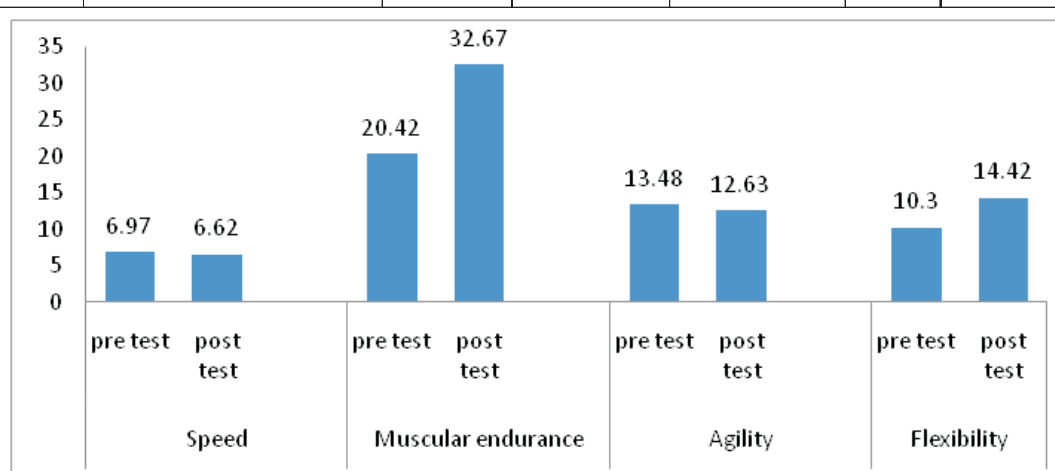


Fig-I Graphs showing mean values of experimental group pre test and post test

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Speed: table-I shows the result of experimental group mean values of pre test and post test were 6.97 and 6.62 respectively. 't' test was applied and t-value (2.02) appeared significant at 0.05 level of confidence.

Muscular endurance: table-I shows the result of experimental group mean values of pre test and post test were 20.42 and 32.67 respectively. 't' test was applied and t-value (2.02) appeared significant at 0.05 level of confidence.

Agility: table-I shows the result of experimental group mean values of pre test and post test were 13.48 and 12.63 respectively. 't' test was applied and t-value (2.02) appeared significant at 0.05 level of confidence.

Flexibility: table-I shows the result of experimental group mean values of pre test and post test were 10.30 and 14.42 respectively. 't' test was applied and t-value (2.02) appeared significant at 0.05 level of confidence.

The obtained variables "t" ratio values of 15.56, 40.39, 9.97, 26.39 respectively. The result of the study there was significant difference on speed, muscular endurance, agility, flexibility.

TABLE-II control group (CTG) was analyzed by 'T' test

CTG		MEAN	CORR	N	'T'
Speed	Pre test	6.62	0.982	40	0.15
	Post test	6.62			
Muscular endurance	Pre test	20.42	0.704	40	3.27
	Post test	21.65			
Agility	Pre test	12.64	0.912	40	2.09
	Post test	12.50			
Flexibility	Pre test	12.27	0.803	40	3.67
	Post test	12.87			

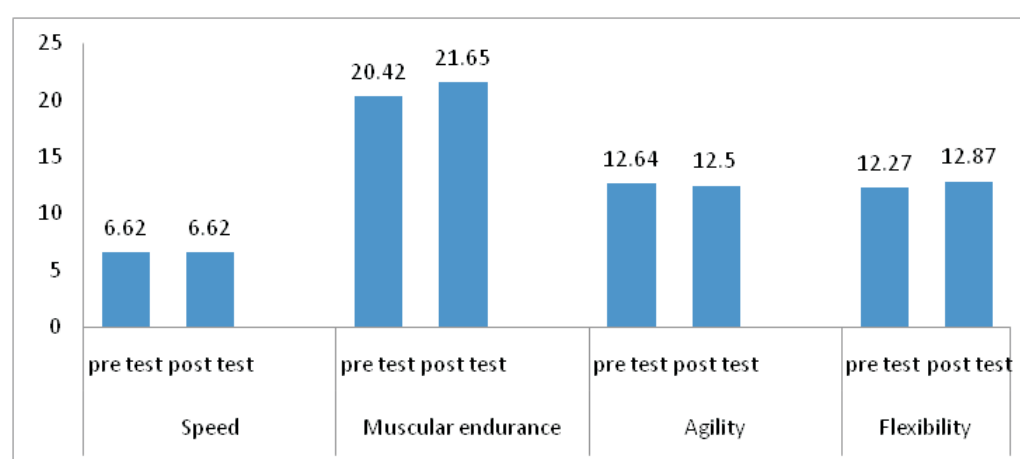


Fig-II Graphs showing mean values of control group pre test and post test

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Speed: table-II shows the result of control group mean values of pre test and post test were 6.62 and 6.62 respectively. 't' test was applied and t-value (2.02) appeared significant at 0.05 level of confidence.

Muscular endurance: table-II shows the result of experimental group mean values of pre test and post test were 20.42 and 21.65 respectively. 't' test was applied and t-value (2.02) appeared significant at 0.05 level of confidence.

Agility: table-II shows the result of experimental group mean values of pre test and post test were 12.64 and 12.50 respectively. 't' test was applied and t-value (2.02) appeared significant at 0.05 level of confidence.

Flexibility: table-II shows the result of experimental group mean values of pre test and post test were 12.27 and 12.87 respectively. 't' test was applied and t-value (2.02) appeared significant at 0.05 level of confidence.

The obtained variables "t" ratio values of 0.15, 3.27, 2.09, 3.67 respectively.

CONCLUSIONS

Based on the findings the following conclusions were derived It was concluded that experimental group after six week training showed a significant improvement in speed, muscular endurance, agility, flexibility. It was concluded that control group showed a no significant improvement in speed, muscular endurance, agility, flexibility.

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