



## EFFECT OF SAQ TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES AMONG SCHOOL BOYS

Dr.T.THANGAMANI

*Physical Director, C.D. Nayagam T.Nagar Hr.Sec. School, T. Nagar, Chennai, Tamilnadu, India.*

### Abstract

The purpose of the study was to investigate the effect of SAQ training on selected physical fitness variables among school boys. It was hypothesized that there would be significant differences on selected physical fitness variables due to the effect of plyometric among school boys. For the present study the 30 male School Boys from C.D. Nayagam, T.Nagar Hr.Sec. School, Chennai district, Tamilnadu were selected at random and their age ranged from 14 to 16 years. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent SAQ training and Group 'B' have not underwent any training. Muscular endurance was assessed by sit ups and explosive power was assessed by standing broad jump. The data was collected before and after twelve weeks of training. The data was analyzed by applying Analysis of Co-Variance (ANCOVA). The level of significance was set at 0.05. The SAQ training had positive impact on muscular endurance and explosive power among school boys.

**Keywords:** SAQ training, Muscular endurance, Explosive power.

### INTRODUCTION

Speed, agility, and quickness training can cover the complete spectrum of training intensity, from low to high intensity. Every individual will come into a training programme at a different level; thus training intensity must coincide with the individual's abilities. Low intensity speed, agility, and quickness drills can be used by everyone for different applications. SAQ drills can also be used to teach movement, warm-up, or to condition an athlete. No significant preparation is needed to participate at this level of speed, agility, and quickness training. Higher intensity drills require a significant level of preparation. A simple approach to safe participation and increased effectiveness is to start a concurrent strength-training program when starting speed, agility, and quickness training.

Speed, agility, and quickness (S.A.Q.) training has become a popular way to train athletes. Whether they are school children on a hockey field or professional in a training camp, they can all benefit from speed, agility, and quickness training. This method has been around for several years, but it is not used by all athletes primarily due to a lack of education regarding the drills. Speed, agility, and quickness training may be used to increase speed or strength, or the ability to exert maximal force during high-speed movements. Some benefits of speed, agility, and quickness training include increases in muscular power in all multiplanar movements; brain signal efficiency; kinaesthetic or body spatial awareness; motor skills; and reaction time (Alan Pearson, 2001).

### METHODOLOGY

The purpose of the study was to investigate the effect of SAQ training on selected physical fitness variables among school boys. It was hypothesized that there would be significant differences on selected physical fitness variables due to the effect of plyometric among school boys. For the present study the 30 male School Boys from C.D. Nayagam, T.Nagar Hr.Sec. School, Chennai district, Tamilnadu were selected at random and their age ranged from 14 to 16 years. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent SAQ training and Group 'B' have not underwent any training. Muscular endurance was assessed by sit ups and explosive power was assessed by standing broad jump. The data was collected before and after twelve weeks of training. The data was analyzed by applying Analysis of Co-Variance (ANCOVA). The level of significance was set at 0.05.

### RESULTS

The findings pertaining to analysis of co-variance between experimental group and control group on selected physical fitness variables among school boys for pre-post test respectively have been presented in table I to II.

**TABLE I**  
**ANCOVA BETWEEN EXPERIMENTAL GROUP AND CONTROL GROUP ON MUSCULAR ENDURANCE OF SCHOOL BOYS FOR PRE, POST AND ADJUSTED TEST**

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	27.86	26.66	BG	10.80	1	10.80	1.81
			WG	167.06	28	5.96	
Post Test Mean	37.80	28.00	BG	720.30	1	720.30	152.32*
			WG	132.40	28	4.72	
Adjusted Post Mean	37.83	29.97	BG	684.92	1	684.92	140.12*
			WG	131.97	27	4.88	

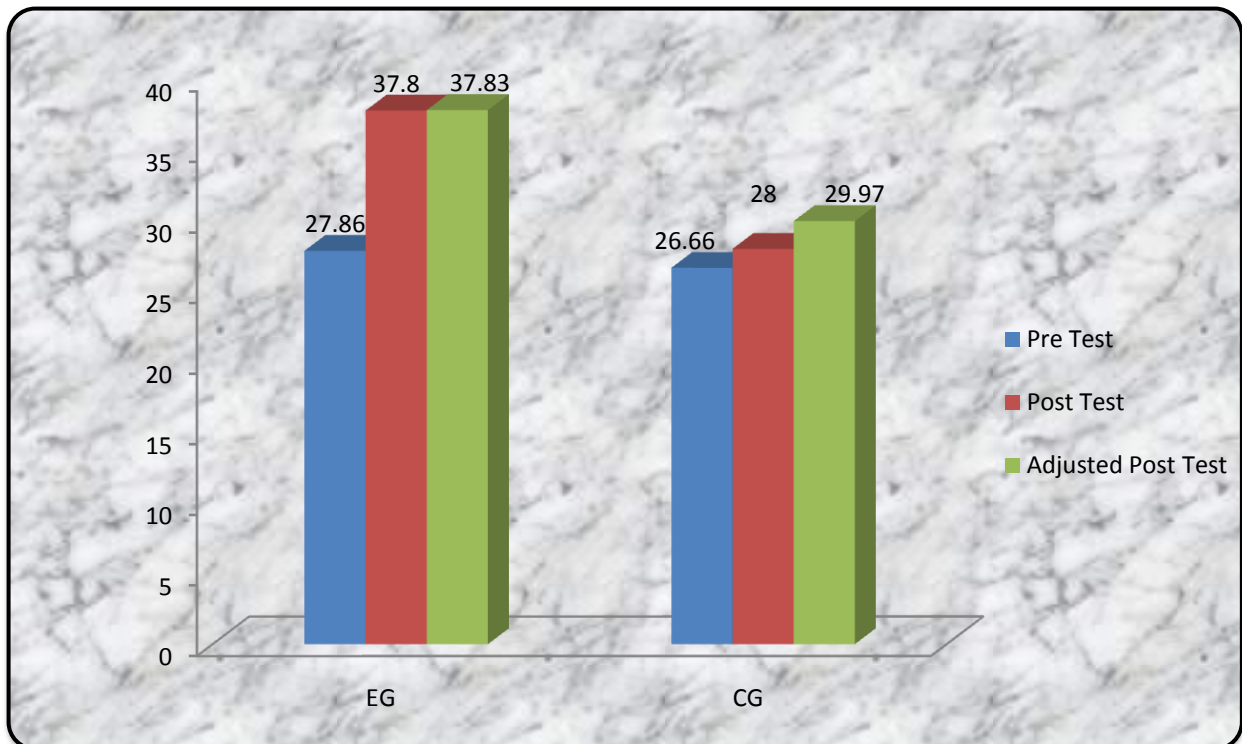
\* Significant at 0.05 level.

df: 1/27= 4.21

Table I revealed that the obtained 'F' value of 140.12 was found to be significant at 0.05 level with df 1, 27 as the tabulated value of 4.21 required to be significant at 0.05 level. The same table indicated that

there was a significant difference in adjusted means of muscular endurance of school boys between experimental group and control group. The graphical representation of data has been presented in figure I.

**FIGURE I**  
**COMPARISONS OF PRE – TEST MEANS POST – TEST MEANS AND ADJUSTED POST – TEST MEANS FOR CONTROL GROUP AND EXPERIMENTAL GROUP IN RELATION TO MUSCULAR ENDURANCE**



**TABLE II**  
**ANCOVA BETWEEN EXPERIMENTAL GROUP AND CONTROL GROUP ON EXPLOSIVE POWER OF SCHOOL BOYS FOR PRE, POST AND ADJUSTED TEST**

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	1.20	1.19	BG	0.002	1	0.002	1.33
			WG	0.04	28	0.002	
Post Test Mean	1.37	1.20	BG	0.21	1	0.21	55.04*
			WG	0.10	28	0.004	
Adjusted Post Mean	1.37	1.20	BG	0.20	1	0.20	50.78*
			WG	0.10	27	0.004	

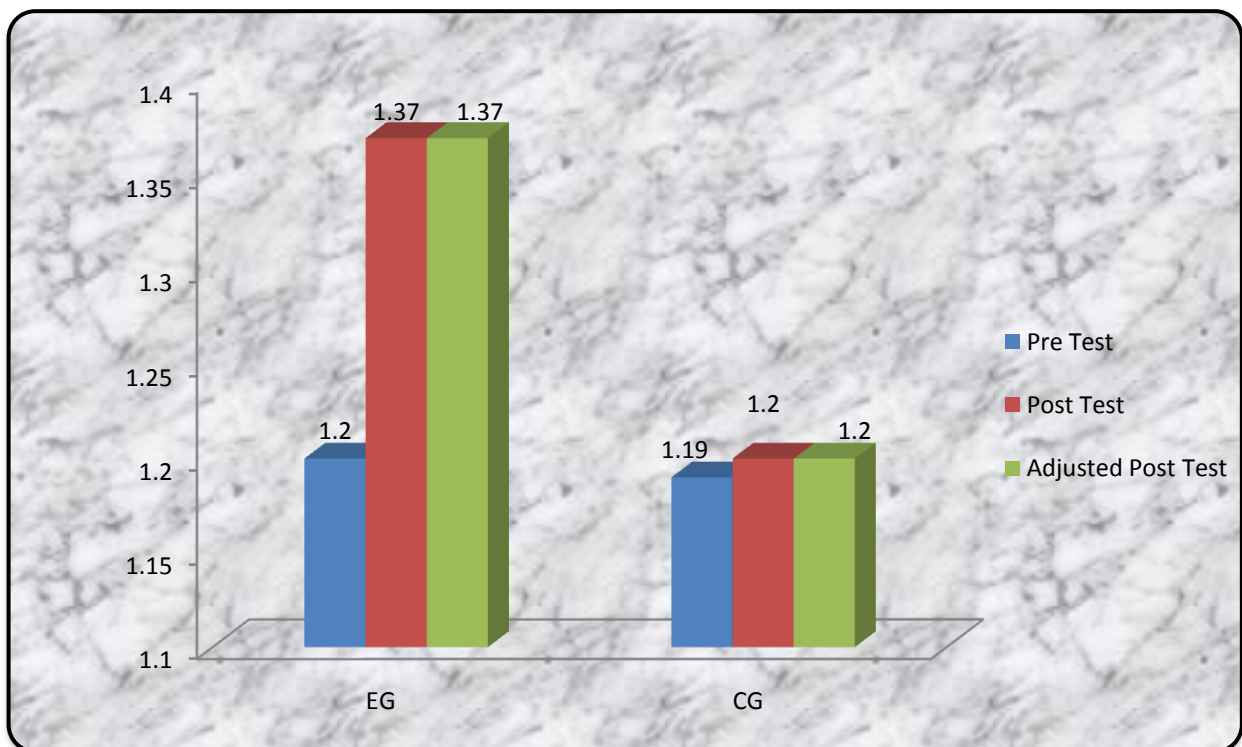
\* Significant at 0.05 level.

df: 1/27= 4.21

Table II revealed that the obtained 'F' value of 50.78 was found to be significant at 0.05 level with df 1, 27 as the tabulated value of 4.21 required to be significant at 0.05 level. The same table indicated that

there was a significant difference in adjusted means of explosive power of school boys between experimental group and control group. The graphical representation of data has been presented in figure II.

**FIGURE II**  
**COMPARISONS OF PRE – TEST MEANS POST – TEST MEANS AND ADJUSTED POST – TEST MEANS FOR CONTROL GROUP AND EXPERIMENTAL GROUP IN RELATION TO EXPLOSIVE POWER**



**CONCLUSION**

On the basis of findings and within the limitations of the study the following conclusions were drawn:

1. The SAQ training had positive impact on muscular endurance and explosive power among school boys.

2. The experimental group showed better improvement on muscular endurance and explosive power among school boys than the control group.

**REFERENCES**

1. Akhil, M., Vikram, S., Shyam, L. & Rai, M.N. (2011). Effect of Six Weeks S.A.Q. Drills Training Programme on Selected Anthropometrical Variables. *Indian Journal of Movement Education and Exercises Sciences (IJMEES)*, Vol. I No. 1.
2. Alan Pearson (2001). *Speed, Agility and Quickness*. London: A & C Black.
3. Barry L. J. & Jack, K. N. (1971). *Practical Measurement for evaluation in Physical Education*. Burgess Publishing Company, Minneapolis.
4. Moreno, E. (1995). Developing Quickness, part II. *Strength and Cond.* 17(1):38–39.
5. Polman, R, Bloomfield, J & Edwards, A. (2009). Effects of SAQ training and small-sided games on neuromuscular functioning in untrained subjects. *Int J Sports Physiol Perform.* 4(4):494-505.
6. Zoran, M., Goran, S., Nebojsa, T., Nic, J.& Kresimir, S. (2013). Effects of a 12 Week SAQ Training Programme on Agility with and without the Ball among Young Soccer Players. *Journal of Sports Science and Medicine.* 12, 97-103.