Original Research Paper

Volume-8 | Issue-3 | March-2018 | PRINT ISSN No 2249-555X

Physical Education

EFFECTS OF SAQ TRAINING, STRENGTH TRAINING AND COMBINED SAQ TRAINING AND STRENGTH TRAINING ON SPEED PERFORMANCE AMONG MEN ATHLETES IN KERALA

Dr. V. A. Manickam — Assistant Professor, Department of Physical Education and Health Sciences, Alagappa University, Karaikudi,-630 004, Tamilnadu, India.

Lijesh Kumar. P — Assistant Professor (Contract), College of Agriculture, Padannakkad, Nileshwar, Kasaragod (Dist), Kerala, India.- PIN: 671 315

ABSTRACT The present study was designed to find out the effects of SAQ training, strength training and combined SAQ training and strength training on speed performance among men athletes in Kerala. To attain the purpose, sixty (N=60) men College athletes who participated in Inter-collegiate athletic meet in Kerala, India, during the year 2015-2016 were selected as subjects. Their age ranged between 18 to 21 years. The subjects were divided at random into four groups of fifteen each (n=15). Group-I underwent SAQ Training, Group-II underwent Strength Training, Group-III underwent Combined SAQ Training and Strength Training, and Group- IV acted as Control. The duration of the training period for all the three Experimental groups was restricted to twelve weeks and the number of sessions per week was confined to three in a week. For Combined SAQ Training and Strength Training the training period was restricted to alternative weeks for twelve weeks. The dependent variable selected for this study was Speed and it was assessed by 50 Meters Run Test. All the subjects were tested prior to and immediately after the training for all the selected variables. Data were collected and statistically analyzed using ANCOVA. Scheffe's post hoc test was applied to determine the significant difference between the paired means. In all the cases 0.05 level of significance was fixed. The results of the study showed that there was a significant difference was found among all the Experimental groups namely of SAQ training, strength training and combined SAQ training and strength training had significantly increase in the Speed. Further the results of the study showed that Combined SAQ training and strength training were found to be better than the SAQ training and strength training in Speed.

KEYWORDS : SAQ training, Strength training, Combined SAQ training and strength training, Speed

INTRODUCTION

Sport and games involve competition. Without competition, there is no game. Competition provides a forum within which people strive to become competent, to become excellent. The opportunities for rivalry within sport are many and varied: team against team, individual against individual, individual against a record, individual now against a previous best performance, individual against a physical barrier. Competition involves individuals and groups striving for excellence within the rules and traditions that make up a sport, including all the festival characteristics that give the sport additional flavor and meaning ***(Dary, 1998).***

Training involves constructing an exercise programme to prepare an athlete for a particular event. Healthy competitions necessitate innovations and remove the road block of complacency on the road to progress and success**.** Without competition, training is meaningless today. Sports training are based on the competitive motive. Each nation is trying to excel the other and achieve top level performance and win laurels at international competitions. Today's records may be broken and proved to be lower than tomorrow's.

Speed, agility and quickness training has become a popular way to train athletes. Whether they are school children on a soccer field or professionals 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 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. It manipulates and capitalizes on the stretch-shortening cycle while bridging the gap between traditional resistance training and functional-specific movements. Some benefits of speed, agility and quickness training include increases in muscular power in all multilane movements, brain signal efficiency, kinesthetic or body spatial awareness, motor skills and reaction time ***(Brown et al., 2000).***

Strength training is an anaerobic form of exercise. This training programme can be used to enhance the ability of the body to perform at very high force and/or power outputs for a very short period of time to improve the ability of the body to perform repeated bouts of maximal activity ***(Baechles, 1994).***

METHODOLOGY

The study was conducted on sixty (N=60) men College athletes who participated in Inter-collegiate athletic meet in Kerala, India, during the year 2015-2016 were selected as subjects. Their age ranged between 18 to 21 years. The subjects were divided at random into four groups of fifteen each (n=15). Group-I underwent SAQ Training, Group-II underwent Strength Training, Group-III underwent Combined SAQ Training and Strength Training, and Group- IV acted as Control. The duration of the training period for all the three Experimental groups was restricted to twelve weeks and the number of sessions per week was confined to three in a week. For Combined SAQ Training and Strength Training the training period was restricted to alternative weeks for twelve weeks. The dependent variable selected for this study was Speed and it was assessed by 50 Meters Run Test.

ANALYSIS OF THE DATA

The data collected from the experimental groups and control group on prior and after experimentation on selected variables were statistically examined by analysis of covariance (ANCOVA) was used to determine differences, if any among the adjusted post test means on selected criterion variables separately. Whenever they obtained f-ratio value in the simple effect was significant the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any. In all the cases 0.05 level of significance was fixed.

The Analysis of covariance (ANCOVA) on Speed of Experimental Groups and Control group have been analyzed and presented in Table - 1.

Table – 1 Values of Analysis of Covariance for Experimental Groups and Control Group on Speed

Certain Variables	Adjusted Post test Means				Source of Variance	Sum of Squares	df	Mean Squares	'F' Ratio
	SAQ Training Group	Strength Training Group	Combined SAQ and Strength Training Group	Control Group					
Speed	7.11	7.02	6.56	7.23	Between With in	4.01 2.77	3 55	1.34 0.05	26.80*

**** Significant at.05 level of confidence***

(The table value required for Significance at 0.05 level with df 3 and 55 is 2.77)

Table-1 shows that the adjusted post test mean value of Speed for SAQ Training group, Strength Training group, Combined SAQ and Strength Training group and Control group is 7.11, 7.02, 6.56 and 7.23 respectively. The obtained F-ratio of 26.80 for the adjusted post test mean is more than the table value of 2.77 for df 3 and 55 required for significance at 0.05 level of confidence.

The results of the study indicate that there are significant differences among the adjusted post test means of Experimental groups on the decrease of Speed.

To determine which of the paired means had a significant difference, Scheffe's test was applied as Post hoc test and the results are presented in Table-2.

Table - 2 The Scheffe's test for the differences between the adjusted post tests paired means on Speed

Certain Variables	Adjusted Post test Means				Mean Difference	Confidence Interval
	SAQ Training Group	Strength Training Group	Combined SAQ and Strength Training Group	Control Group		
Speed	7.11	7.02	--	--	0.09*	0.08
	7.11	--	6.56	--	0.55*	0.08
	7.11	--	--	7.23	0.12*	0.08
	--	7.02	6.56	--	0.46*	0.08
	--	7.02	--	7.23	0.21*	0.08
	--	--	6.56	7.23	0.67*	0.08

**** Significant at.05 level of confidence***

Table-2 shows that the adjusted post test mean differences on Speed between SAQ training group and strength training group, SAQ training and Combined SAQ and Strength training group, SAQ training group and Control group, Strength training group and Combined SAQ and Strength training group, Strength Training group and Control group, Combined SAQ and Strength training group and Control group are 0.09, 0.55, 0.12, 0.46, 0.21 and 0.67 respectively and they are greater than the confidence interval value 0.08, which shows significant differences at 0.05 level of confidence.

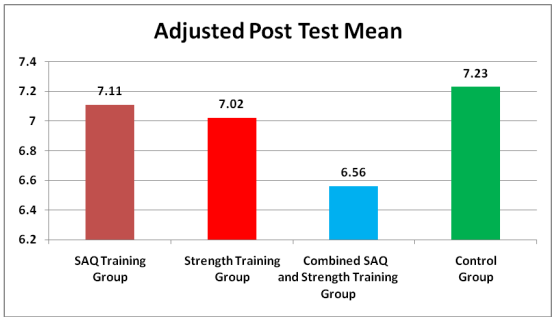
The results of the study further have revealed that there is a significant difference in Speed between the adjusted post test means of SAQ training group and strength training group, SAQ training and Combined SAQ and Strength training group, SAQ training group and Control group, Strength training group and Combined SAQ and Strength training group, Strength Training group and Control group, Combined SAQ and Strength training group and Control group.

However, the decrease in Speed was significantly higher for Combined SAQ and Strength training group than other Experimental groups.

It may be concluded that the Combined SAQ and Strength training group has exhibited better than the other experimental groups in decreasing Speed.

The adjusted post test mean value of experimental groups on Speed is graphically represented in the Figure -1.

Figure-1 Bar diagram on ordered adjusted means of Speed



CONCLUSION

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

1. Significant differences in achievement were found between SAQ Training group, Strength Training group, Combined SAQ and Strength Training group and Control group in the selected criterion variable such as Speed.
2. The Experimental groups namely, SAQ Training group, Strength Training group and Combined SAQ and Strength Training group had significantly improved in Bio-Chemical variable such as Speed.
3. The Combined SAQ and Strength Training group was found to be better than the SAQ Training group, Strength Training group and Control group in decreasing Speed.

REFERENCES

1. Baechle Thomas R. (1994), "Essential of Straining Training and Conditioning" Champaign Illinois: Human Kinetics Publishers, p.319.
2. Brown LE, Ferrigno VA, and Santana JC (2000), Training for Speed, Agility and Quickness, Champaign, Illinois: Human Kinetics.
3. Dary Siedentop, (1998), Introduction to Physical Education, Fitness, and Sport, (3 Ed), Mayfield Publishing Company, Mountain View, California.