Research Paper Physical Education

Impact of Small Sided Games on Acceleration Speed and Dribbling of Inter Collegiate Level Soccer Players

G.Rajasekar	Ph.D Scholar, Department of Physical Education, Annamalai University
Dr.M.Rajashekaran	Professor, Department of Physical Education, Annamalai University. Tamilnadu.
Dr.K.Sivakumar	Associate Professor, Department of Physical Education, Annamalai University. Tamilnadu.

ABSTRACT

The study was designed to investigate the impact of small sided games on acceleration speed and dribbling of inter collegiate level soccer players. Thirty men football players who participated in the Anna university zone XIV inter collegiate tournaments were selected as subjects and segregated into two groups of fifteen subjects each as experimental group and control group following random procedure. The experimental group underwent small sided games training over a period of twelve weeks where as control group did not participate in any of the training except their regular play. Acceleration speed and dribbling were assessed before and after the experimental period by using 30m run and dribbling tests respectively. ANCOVA was used to analyze the collected data. The results of this study showed that there was a significant difference between experimental group and control group on Acceleration speed and dribbling.

KEYWORDS Soccer, Acceleration Speed, Dribbling, Analysis of Co variance (ANCOVA)

INTRODUCTION

Soccer is by far the world's most popular game. Millions play the game and hundreds of millions are entertained by it, either at football grounds or through television. Soccer is a game which calls for strenuous, continuous thrilling action and therefore, appeals to the youth worldwide. The skills involved in the game are simple, natural and yet are highly stimulating and satisfying to any one who participates in the game". Football as it is popularly called in India is a game where the foot is used much more than any part of the body. Bernard Shaw's comment underlines this reality that "Footballers think with their feet".

The game of soccer is very complicated in terms of skills and teamwork. Control of the soccer is perfected by the development of fundamental skills like dribbling, passing, kicking, trapping, shooting, tackling, heading etc. The game soccer is both an art and science. There is a distinction, which gives a specialty to soccer compared to that of other games. It is the natural behavior of human beings to use their hands and arms for doing almost all the activities. In all other games, hands are dominantly used. But in soccer, the use of hands has been restricted which is only used for throw in (exception is given only to the Goal Keeper-that too inside the penalty area) and all the other parts of the body are allowed to play, especially the foot. Thus, when trying to control the ball using all the parts of the body except hand in order to score a goal, it becomes a beautiful game. Though these individual skills are very important, it should not be forgotten that it is a team game and the players have to work together in offence or defense. Small-sided games are games played on smaller fields and with fewer players than the adult game of 11 versus 11. Games of 3 versus 3, 4 versus 3 and 4 versus 4 are examples of small-sided game numbers. As you can see, playing numbers can be even or uneven and the game can be played.

METHODOLOGY

To achieve the purpose of the study, thirty men football players studying various engineering courses and who participated in the Anna university zone XIV inter collegiate tournaments were selected as subjects from TRP engineering college, Sri Angalamman engineering college and K.Ramakrishna engineering college, Trichy, Tamilnadu. Their age ranges between 19 and 25 years and they were divided into two equal groups of fifteen subjects each as experimental group and control group. The experimental group underwent small sided games training over a period of twelve weeks where as control group did not participate in any of the training except their regular play. The selected criterion variables such as acceleration speed and dribbling were assessed by using 30m run and dribbling tests respectively. The collected data were statistically analyzed for significant difference, if any, by applying analysis of covariance (ANCOVA). In all cases 0.05 level was fixed as confidence interval to test the significance.

ANALYSIS OF DATA

Acceleration Speed

The analysis of covariance on acceleration speed of pre and post test scores of small sided group and control group have been analysed and presented in Table I

Table - I ANALYSIS OF COVARIANCE ON ACCELERATION SPEED OF SMALL SIDED GAMES AND CONTROL GROUPS

Test	SSG	Control	Source of variance	Sum of Squares	Df	Mean squares	'F' ratio
Pretest Mean	4.74	4.81	Between	0.042	1	0.042	2.27
SD	0.152	1.16	Within	0.514	28	0.018	
Posttest Mean	4.38	4.78	Between	1.240	1	1.240	109.78*
SD	0.085	0.123	Within	0.316	28	0.011	
Adjusted Posttest Mean	4.40	4.76	Between	0.887	1	0.887	254.45*
			Within	0.094	27	0.003	

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

(The table values required for significance at .05 level of confidence for degree of freedom 1 and 28 and 1 and 27 are 4.20 and 4.21 respectively)

The table-I, shows that the pre-test mean value of Accelera-

tion Speed for small sided games and control group are 4.74 and 4.81 respectively. The obtained "F" ratio of 2.27 for pre –test scores which were less than the required table value of 4.20 for significance with df 1 and 28 at 0.05 level of confidence. The post-test mean value of Acceleration speed for small sided games and control group are 4.38 and 4.78 respectively. The obtained "F" ratio of 109.78 for post –test scores which were higher than the required table value of 4.20 for significance with df 1 and 28 at 0.05 level of confidence. The adjusted post-test mean value of Acceleration speed for small sided games and control group are 4.40 and 4.76 respectively. The obtained "F" ratio of 254.45 for adjusted post –test scores which were more than the required table value of 4.21 for significance with df 1 and 27 at 0.05 level of confidence.

The results of the study showed that there was a significant difference between the adjusted post test means of small sided games group and control group on acceleration speed.

Dribbling

The analysis of covariance on dribbling of pre and post test scores of small sided group and control group have been analysed and presented in Table II

Table - II ANALYSIS OF COVARIANCE ON DRIBBLING OF SMALL SIDED GAMES AND CONTROL GROUPS

Test	SSG	Control	Source of variance	Sum of Squares	Df	Mean squares	'F' ratio
Pretest Mean SD	17.68	17.72	Between	0.013	1	0.13	0.168
	0.255	0.304	Within	2.206	28	0.074	
Posttest Mean SD	17.24	17.64	Between	1.18	1	1.18	16.74*
	0.215	0.308	Within	1.986	28	0.071	
Adjusted Posttest Mean	17.26	17.62	Between	0.967	1	0.967	132.12*
			Within	0.198	27	0.007	

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

(The table values required for significance at .05 level of confidence for degree of freedom 1 and 28 and 1 and 27 are 4.20 and 4.21 respectively)

The table-II, shows that the pre-test mean value of dribbling for small sided games and control group are 17.68 and 17.72 respectively. The obtained "F" ratio of 0.168 for pre –test scores which were less than the required table value of 4.20 for significance with df 1 and 28 at 0.05 level of confidence. The post-test mean value of dribbling for small sided games and control group are 17.24 and 17.64 respectively. The obtained "F" ratio of 16.74 for post –test scores which were higher than the required table value of 4.20 for significance with df 1 and 28 at 0.05 level of confidence. The adjusted post-test mean value of dribbling for small sided games and control group are 17.26 and 17.62 respectively. The obtained "F" ratio of 132.12 for adjusted post –test scores which were more than the required table value of 4.21 for significance with df 1 and 27 at 0.05 level of confidence.

The results of the study showed that there was a significant difference between the adjusted post test means of small sided games group and control group on dribbling.

RESULTS AND DISCUSSION

There was a significant difference existed between small sided games group and control group due to twelve weeks of experimental training on acceleration speed and dribbling.

In high performance sports it has been well documented that the maximum benefits are achieved when the training stimuli are similar to competitive demands (Bompa, 1983). In order to reproduce the physical, technical and tactical requirements of real match play coaches often use Small Sided Games in their training programs.

Small Sided Games started as an optimal task to optimize training time by fulfilling the broad range of fitness requirements without compromising skill performance and decision-making. Therefore, they are used extensively to improve physical fitness levels and also technical and tactical performance in a wide variety of soccer codes

Hill-Haas et al., 2009 and Balsom, 2000; The intensity of these soccer-specific training drills with the ball can be affected or manipulated to provide different physical, technical and tactical responses by several factors, such as, the number of players involved, the size and the shape of the pitch, the duration of exercise and rest periods, the rules of the game, coach encouragement, the availability of balls or by the way of scoring points. A better understanding of the influence of modifying those variables on Small Sided Games will assist coaches in controlling the training process with players.

REFERENCES

Fradua L, Zubillaga A, Caro O, Iván Fernández-García A, Ruiz-Ruiz C, Tenga A.(2013)Designing smallsided games for training tactical aspects in soccer: extrapolating pitch sizes from full-size professional matches. Journal of Sports Sciences. ;Vol:31(6):573-81. doi: 10.1080/02640414.2012.746722. Epub 2012 Nov 28. | | Aguiar M, Botelho G, Lago C, Maças V, Sampaio J.(2012) A review on the effects of soccer small-sided games. Jurnal of Human Kinetics. Vol;33:PP:103-13. | | Hill-Haas SV, Dawson B, Impellizzeri FM, Coutts AJ. (2011) Physiology of small-sided games training in football: a systematic review. Sports Medicicne. Vol: 41; No:3:PP:199-220. | | Brandes M, Heitmann A, Müller L. (2012) Physical responses of different small-sided game formats in elite youth soccer players. Journal of Strength and Conditioning Research. Vol;26, Vol:5; PP:1353-60.. | | Ngo JK, Tsui MC, Smith AW, Carling C, Chan GS, Wong del P.(2012) The effects of man-marking on work intensity in small-sided soccer games. Journal Sports Science & Medicine.Vol: 11; No:1;PP:109-14. | | Aguiar M, Botelho G, Lago C, Maças V, Sampaio J. (2012) A review on the effects of soccer small-sided games Journal of Human Kinetics. Vol;33., PP:103-13. |