

Effect of Circuit Training on the Basis of Motor Skills (Speed) and Skill Abilities (Dribbling) of School Football Players of Mumbai

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Abstract

Football is one of the well-known games across world. Football also known as Soccer or European Football in USA and Canada. There are certain rules and regulation for playing this game. Firstly, required two teams with sixteen players; 11 on field and 5 substitutes. This game using Spherical ball of 67-70 cm of circumference for playing. The game has to played in between of two goal post. And game started by kick off. There are some fundamental skills using for the game on field by the players like heading, dribbling, kicking, passing, defending, goal keeping etc. when ball crosses the goal line by team scored as goal. When both teams have scored equal goals means tie happened then there are methods to solved or break the tie by extra time, penalty shoot and sudden death.

The purpose of study was to determine the effect of circuit training on speed and dribbling of school football players aged 14 to 16 years. A sample of Forty (n=40) school football players age ranged 14 to 16 years was identified as subjects from Arsenal football academy Mira road, area of suburban Mumbai. further they had been randomly divided into two identical corporations i.e. experimental and manipulate institution with same variety of topics. Experimental organization (circuit education institution (n=20)) and control group (non-circuit education institution (n=20)). The layout of the have a look at changed into Non-equivalent manage organization design. The experimental topics in conjunction with day these days lifestyles underwent a Circuit schooling programmed for 3 days in per week. The collected records changed into analysis with assist of 't' test. The end result revealed that the effect of circuit schooling programmers helped to enhance velocity and dribbling talent of football gamers elderly 14 to 16 years. The findings finish that the circuit schooling turned into found beneficial to improve speed and dribbling of football players aged 14 to 16 years.

Keywords

Circuit training, speed, dribbling, and football players.

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Introduction

Football, a sport that transcends borders and unites people from diverse backgrounds, has been an integral part of human culture for centuries. Whether we call it football or soccer, this beautiful game has evolved into a global phenomenon, capturing the hearts and minds of millions around the world. Its impact on society, economy, and culture is undeniable, making it a subject of significant interest for researchers and enthusiasts alike. Beyond the mere act of kicking a ball, football embodies a profound sense of camaraderie, identity, and unity among people. It transcends cultural, linguistic, and geographical boundaries, creating a global community of fans who share in the joys and sorrows of the sport. Football is one of the well-known games across world. Football also known as Soccer or European Football in USA and Canada. There are certain rules and regulation for playing this game. Firstly, required two teams with sixteen players; 11 on field and 5 substitutes. This game using Spherical ball of 67-70 cm of circumference for playing. The game has to played in between of two goal post. And game started by kick off. There are some fundamental skills using for the game on field by the players like heading, dribbling, kicking, passing, defending, goal keeping etc. when ball crosses the goal line by team scored as goal. When both teams have scored equal goals means tie happened then there are methods to solved or break the tie by extra time, penalty shoot and sudden death.

Motor skills play a fundamental role in human development and functionality, influencing our ability to interact with the environment and achieve various tasks throughout life. These skills encompass a wide spectrum of movements, from basic actions such as grasping and walking to complex activities like playing a musical instrument or performing athletic maneuvers. As individuals grow and engage in different activities, their motor skills evolve and adapt to meet the demands of their environment. Moreover, these skills continue to be relevant throughout life, affecting an individual's ability to participate in sports, perform work-related tasks, and maintain an active and independent lifestyle.

Circuit training is a highly versatile and widely adopted fitness regimen that combines a series of exercises in a systematic and structured manner. It is characterized by its efficiency and effectiveness in providing a comprehensive workout that targets multiple muscle groups and physiological systems within a relatively short period. Circuit training can be tailored to meet the specific fitness goals of individuals, whether that is enhancing cardiovascular endurance, building muscular strength, or even

improving functional mobility. This approach to fitness has gained immense popularity in recent years, both in professional sports and recreational settings, due to its ability to provide a well-rounded and time-efficient workout.

The present study was conducted for evaluating the component like speed and dribbling in football players of Mumbai.

Objectives of the Study

1. To compare the adjusted Mean Scores of speed of School football players by taking speed as covariate.
2. To compare the adjusted Mean Scores of Dribbling of School football players by taking Dribbling as covariate.

Hypothesis of the Study

H_{01} : There is no significant difference in the mean scores gains in speed of football players.

H_{02} : There is no significant difference mean scores gains in Dribbling of football players.

Methodology

Research Design: (Non-equivalent groups design)

The design of the trial had been planned in three phases' viz., Phase – I Pre-test, Phase – II Training or Treatment, and Phase – III Post-test. The subjects in the trial were divided into two groups one Circuit Training Group i.e. (Experimental Group) and one Non Circuit Training Group i.e. (Control Group); each group comported of 20 subjects. Circuit Training Group i.e. (Experimental Group) was given a circuit Training programme for the period of six weeks. The total training programme of the experimental group is 12 weeks, 3 days in a week i.e. Monday Wednesday and Friday except on vacation, in the evening session for 1 hour.

Training Schedule

Weeks	Monday	Wednesday	Friday	Duration
1 & 2 week	MAC	MAC	MAC	45 to 60 minutes
3 & 4 week	SAC	SAC	SAC	45 to 60 minutes
5 & 6 week	MAC	MAC	MAC	45 to 60 minutes
7 & 8 week	SAC	SAC	SAC	45 to 60 minutes
9 & 10 week	MAC	MAC	MAC	45 to 60 minutes
11 & 12 week	SAC	SAC	SAC	45 to 60 minutes

MAC: Motor Ability Circuit

SAC: Skill Ability Circuit

Statistical Technique

The data has been analyzed using independent t test with online Vassar stats Computational package to test this hypothesis as shown in the following table.

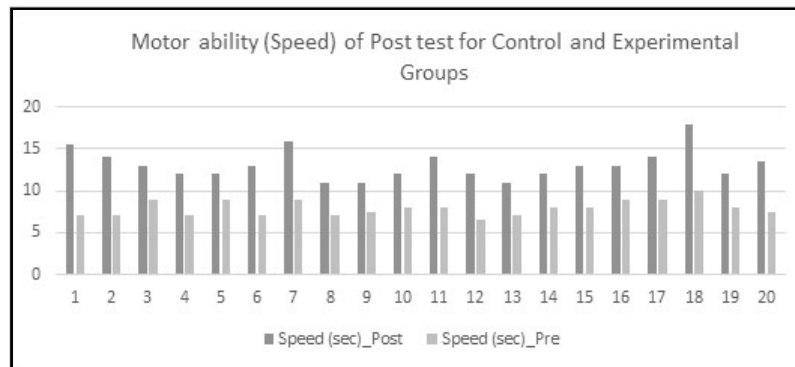
Adjusted Mean Scores of Post test of Control and Experimental groups for Speed

Table 1: Mean Gain for Motor ability (Speed) of Football players

	n	ΣX	ΣX^2	SS	Mean	Mean a —Mean b	df	t	LoS
Control	20	262	3493.5	61.3	13.1	5.175	38	+11.35	<.0001
Experimental	20	158.5	1273.75	17.6375	7.925				

Interpretation

The Mean Gain for Motor ability (Speed) of Football players is 5.175, the calculated t for the observed values is +11.35 ($p = <.0001$) for $df = 38$ at 5% level of significance, which is highly significant, hence the Motor ability (Speed) of Football players is improved significantly with the Circuit training programme. Hence, the null hypothesis is rejected.



Adjusted Mean Scores of Post test of Control and Experimental groups for Dribbling

Table 2: Mean Gain for skill ability (Dribbling) of Football players

	n	ΣX	ΣX^2	SS	Mean	Mean a —Mean b	df	t	LoS
Control	20	978	48440	615.8	48.9	11.6	38	+6.22	<.0001
Experimental	20	746	28532	706.2	37.3				

Interpretation

The Mean Gain for skill ability (Dribbling) of Football players is 11.6, the calculated t for the observed values is +6.22 ($p = <.0001$) for $df = 38$ at 5% level of significance, which is highly significant. Hence, the null hypothesis is rejected for the Skill ability (Dribbling) of Football players which shows significant improvement with Circuit training programme.

Conclusion

- The Circuit Training has significantly improved the Speed ability of the school Football Players.
- The Circuit Training has significantly improved the Dribbling ability of the school Football Players.

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