

## EFFECT OF 8 WEEKS COMBINED SSG AND FUNCTIONAL TRAINING ON SELECTED MOTOR FITNESS COMPONENTS AND PLAYING ABILITY OF SOCCER PLAYERS

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**Received: 10<sup>th</sup> July, 2025**

**Revised & Accepted: 15<sup>th</sup> November, 2025**

**Published: 25<sup>th</sup> December, 2025**

**DOI: <https://doie.org/10.65985/AS.2026939780>**

### ABSTRACT

The main purpose of the study was to determine the effect of an 8-weeks combined training program involving Small Sided Games (SSG) and Functional Training on selected Motor Fitness Components and Playing Abilities of Soccer Players. The training aimed to enhance the Motor Fitness parameter such as Cardiovascular Endurance and Speed while also improving Playing Abilities including Dribbling, Shooting for Accuracy of the Players. Twenty-two (N=22) players of All India University (AIU) participants of Dhanamanjuri University, Manipur were selected for the training programme by adopting purposive sampling method. The age of the subject ranged from 18-24 years. Copper 12-Minutes Run/Walk Test, 20-Meter Dash Test were applied for collection of data on Cardiovascular Endurance and Speed respectively. M.L. Heath and E.G. Rodgers soccer test was applied for collection of data on Playing Abilities namely Dribbling and Shooting Accuracy. Pre- test data were collected before the administration of the 8 weeks training program and also Post-test data were collected immediately after the completion of 8 weeks training program.

Dependent 't'-test were employed to find out the significant improvements of the selected dependent variables of Cardiovascular Endurance, Speed, Dribbling and Shooting Accuracy of the players. The level of significance was set at 0.05. Statistical analysis reveals that there is significant improvement in Cardiovascular Endurance, Speed, Dribbling and Shooting Accuracy of the players. The 8 weeks combined SSG and Functional training on selected Motor Fitness Components and Playing Abilities of the Soccer Players has significantly improved

**Key Words:** Soccer, Motor Fitness, Playing Ability, Functional Training, Cardiovascular Endurance, Speed, Dribbling and Shooting Accuracy.

### Introduction

Soccer, also known as football in most parts of the world, is the globe's most popular team sport, played by millions of people across the diverse cultures and regions. The game involves two teams of eleven (11) players each, competing to score

goals by maneuvering a spherical ball into the opponent team net with legs. The team that scores more goals wins the match.

The modern soccer demands a good mental, physical, technical skills in order to give a good performance during the match. Without possessing a harmonious blend of technical proficiency, tactical awareness, and physical fitness the players won't be able to succeed in performing and competing the opponents. So proper training program that works on all the technical skills and overall fitness will have a greater success rate in winning along with a good strategy.

Small Sided Games (SSG) have gained a prominence as a training modality that simulates match conditions, enhancing players technical skills, decision-making, and physical fitness. Functional training on the other hand emphasizes exercise that mimic the movements and demands of the sport, aiming to improve performance-related fitness components. Integrating both the Functional Training and Small Sided Games could potentially offer a comprehensive approach to players developments, addressing both the physical and technical aspects of the game. So, keeping view on these points the researcher wanted to find out the "Effect of 8 Weeks Combined SSG and Functional Training on Selected Motor Fitness Components and Playing Abilities of Soccer Players." By exploring the combined effects of these training methods over an 8-weeks period, the study seeks to provide empirical evidence on their efficacy in enhancing motor fitness components and playing abilities. This study aims to informs coaching practices contribute to the development of more effective training programs tailored to multifaceted nature of soccer.

On the basis of reviewing the literature, discussion with the experts and personal experience of the scholar, it was hypothesis that there might be significance improvements in Motor Fitness and Playing Abilities of soccer players due to 8 weeks combined SSG and Functional Training.

### **Methods and Materials**

To achieved the purpose of the study, twenty-two (N=22) players of Dhanamanjuri University, Manipur All India University (AIU) Men's Football team were adopting by purposive sampling method. The age of the subject was ranged from 18 to 24 years.

Pre-test data were collected before the administration of the experimental treatments of SSG and Functional training. Three-time keeper were employed for the collection of data on Motor Fitness namely, Copper 12 minutes Run/Walk Test and 20-meter Dash Test and Skill Abilities namely Dribbling and Shooting Accuracy. The equipment's used during the collection of data are stop watch, cone, marker, whistle, marking powder, measuring tape, clip board, pen, papers and football field.

### **Administration of Test**

#### **12-Minute Copper Run/Walk Test:**

This test measures the maximum distance of players can cover in 12 minutes. The researcher constructs a 400m running area and let the players warm-up to prepare the body for the test. The researcher explained the test procedure to the players. They should aim to cover as much distance as possible within 12-minute timeframe. On the signal "Go" start the timer and allow the players to begin jogging, running or walking at their own pace. In the meantime, the time keeper provides updates on the remaining duration. After 12 minutes, signal the end of the test. Record the total distance covered, measured to the nearest 100 meter.

### **20-meter Dash Test:**

This test evaluates the players sprinting speed over a short distance. The researcher marked a 20-meter straight line on a football field and place a cone at the start and finished lines and let the players warm-up to prepare the body for the test. The researcher explained the test procedure to the players. They should start from a standing position behind the start line and sprint to the finish line as quick as possible on the signal “GO”. Using the stop watch the time was recorded.

### **Dribbling a Ball by M.L. Heath and E.G. Rodgers Test:**

This test evaluates the players control over the ball, technique, agility and speed while dribbling a ball around the cones. This involves using quick touches, short dribbles, and body feints to beat an opponent. The researcher marked a 14 yards straight line on a football field and place the first cones at the start and the second cone will be at 5-yard distance and the third, fourth and fifth cone will be at the distance of 3 yard of straight line. On the signal “GO” the player start dribbling from the starting cone as fast as he can till the fifth and dribble back to the starting cone. The time taken from the starting till finish was the score. Best time out of two trials was recorded.

### **Kicking a Rolling Ball by M.L. Heath and E.G. Rodgers Test:**

This test evaluates the players ability to strike a rolling ball accurately with power inside the net. The researcher rolled the ball from the corner area of the goal line diagonally across the goal area. The player came in and kicked the ball before entering the goal area. Five times from the left corner and five time from the right corner. Two-point score for a successful kick through the goal. One point score for each ball which did not go through the goal, but crossed the goal line. Zero point was given while the ball crossed over beyond the limits of goal area.

The players underwent 8-weeks combined SSGs and Functional Training, where the number of sessions was delimited to 5 days a week and a training duration of two and half hours. Post-test data were collected immediately after the completion of 8-weeks training program.

### **Result and Discussion**

The data pertaining to the selected variables of overall performance was examined statistically by applying ‘t’-test in order to determine the significance of difference between the Pre-test and Post-test of the players. The level of significance to test the hypothesis was set at 0.05.

**Table-1**  
**Comparisons of Pre-test and Post-test Means for the Data Cardiovascular Endurance of Soccer Players**

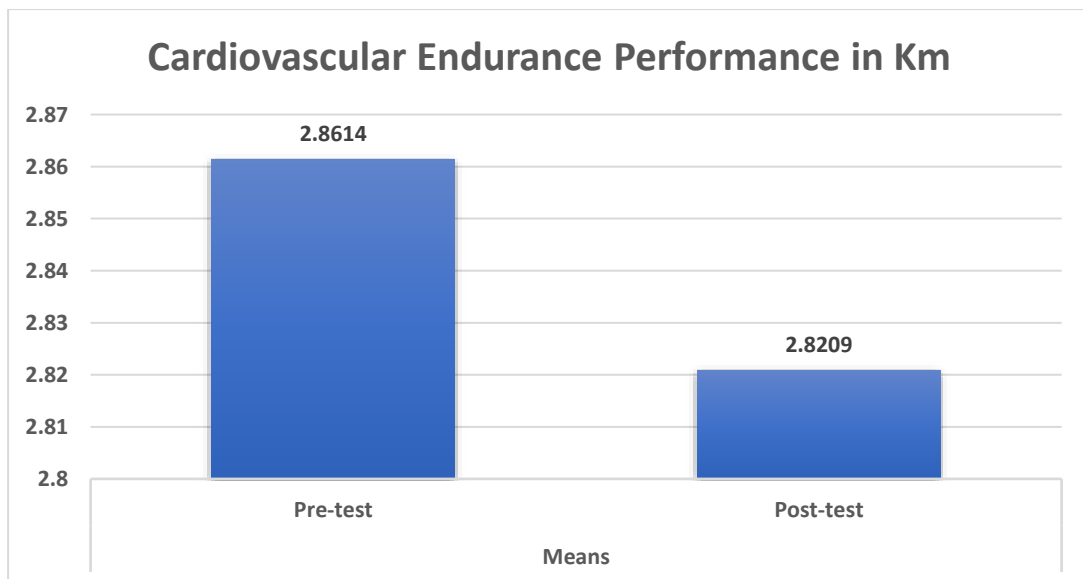
Group	Mean	SD	MD	Std. Error Mean Difference	t-ratio
Pre-test	2.6814	0.2518	0.1395	0.051	2.7219*
Post-test	2.8209	0.3422			

\* Significant at .05 level  
 2.0796

Tabulated  $t_{0.05(21)} =$

It is evident from the finding of the above Table-1 that significance difference is observed between the Pre-test and Post-test means of Cardiovascular Endurance of the soccer players as the obtain t-value 2.7219 is greater than the tabulated t-value 2.0796 at 0.05 level for the 21 degrees of freedom. From the above finding it may be inferred that significance difference is observed between the Pre-test and Post-test Means of Cardiovascular Endurance.

The pre-test and post-test mean values of soccer players on Cardiovascular Endurance are graphically represented in figure – 1.



**Figure-1:** The Pre-test and Post-test Mean values on Cardiovascular Endurance of Soccer Players.

**Table – 2**  
**Comparison of Pre-test and Post-test Means for the Data on Speed of Soccer Players**

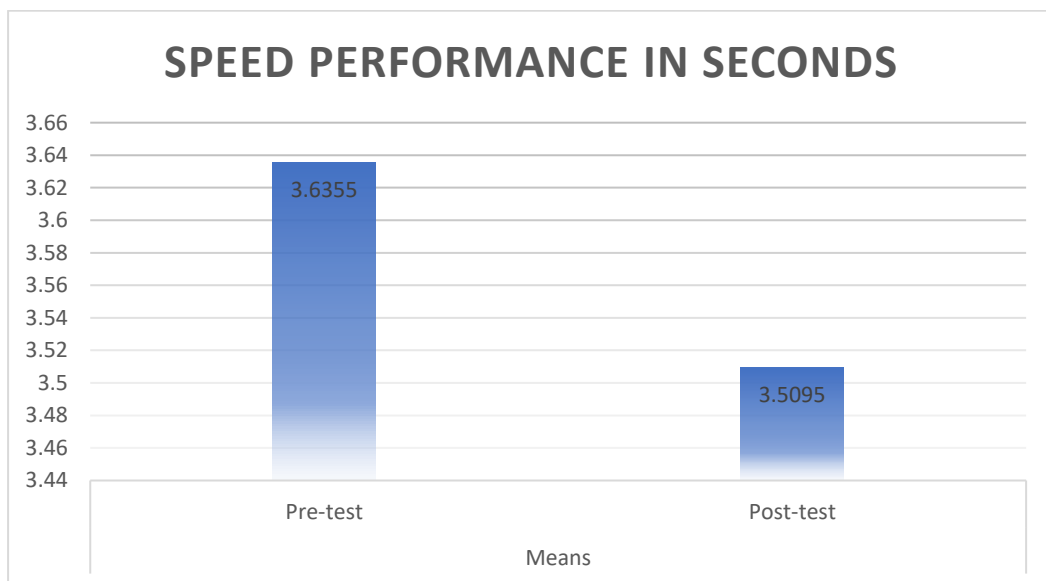
Group	Mean	SD	MD	Std. Error MD	t-ratio
Pre-test	3.6355	0.3671	0.126	0.047	2.7018*
Post-test	3.5095	0.3525			

\* Significant at .05 level  
 2.0769

Tabulated  $t_{0.05(21)} =$

It is evident from the finding of the above Table-2 that significance difference is observed between the Pre-test and Post-test means of Speed of the soccer players as the obtain t-value 2.7018 is greater than the tabulated t-value 2.0796 at 0.05 level for the 21 degrees of freedom. From the above finding it may be inferred that significance difference is observed between the Pre-test and Post-test Means of Speed of soccer players due to 8 weeks training programme.

The pre-test and post-test mean values of soccer players on Speed are graphically represented in figure – 2.



**Figure-2:** The pre-test and Post-test Mean values on Speed of Soccer Players.

**Table – 3**

**Comparison of Pre-test and Post-test Means of for the Data on Dribbling a Ball**

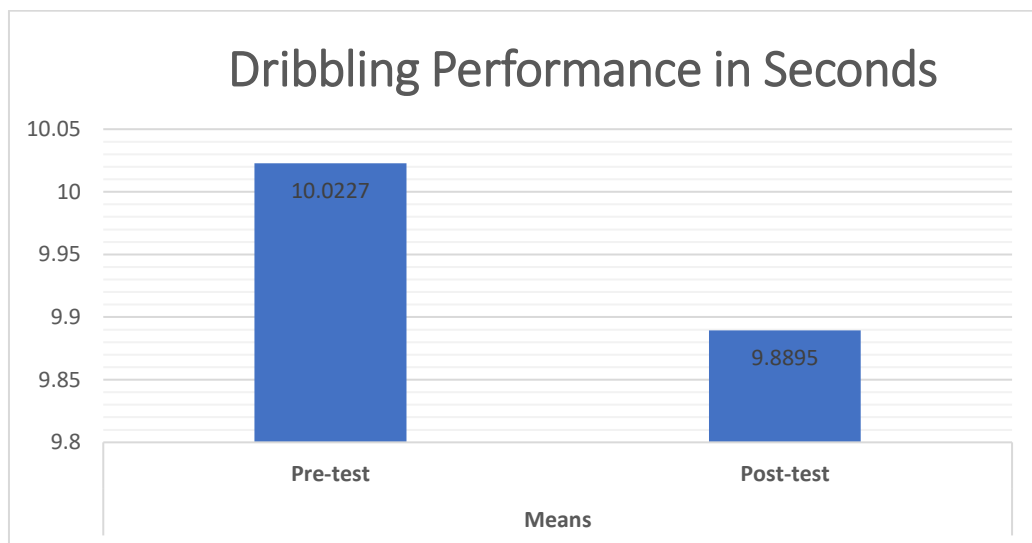
Group	Mean	SD	MD	Std. Error MD	t-ratio
Pre-test	10.0227	0.8576	0.1332	0.043	3.1019*
Post-test	9.8895	0.8255			

\* Significant at .05 level  
2.0769

Tabulated  $t_{0.05(21)} =$

It is evident from the finding of the above Table-3 that significance difference is observed between the Pre-test and Post-test means of Dribbling of the soccer players as the obtain t-value 3.1019 is highly greater than the tabulated t-value 2.0796 at 0.05 level for the 21 degrees of freedom. From the above finding it may be concluded that high significance difference is observed between the Pre-test and Post-test Means of Dribbling of soccer players due to 8 weeks training programme.

The pre-test and post-test mean values of soccer players on Dribbling are graphically represented in figure – 3.



**Figure-3:** The pre-test and Post-test Mean values of Dribbling of soccer players

**Table – 4**  
**Comparison of Pre-test and Post-test Means of Shooting Accuracy of Soccer Players**

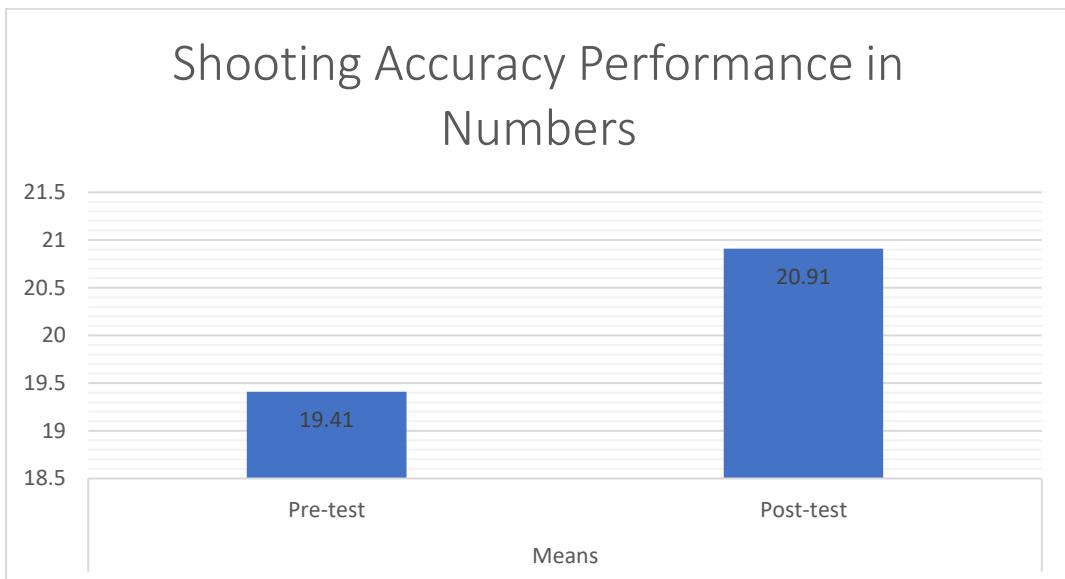
Group	Mean	SD	MD	Std. Error MD	t-ratio
Pre-test	19.41	2.58	1.5	0.235	6.3847 *
Post-test	20.91	2.94			

\* Significant at .05 level  
 2.0769

Tabulated  $t_{0.05(21)} =$

It is evident from the finding of the above Table-4 that significance difference is observed between the Pre-test and Post-test means of Shooting Accuracy of the soccer players as the obtain t-value 6.3847 is highly greater than the tabulated t-value 2.0796 at 0.05 level for the 21 degrees of freedom. From the above finding it may be inferred that significance difference is observed between the Pre-test and Post-test of Shooting Accuracy of soccer players.

The pre-test and post-test mean values of soccer players on Shooting Accuracy are graphically represented in figure – 4.



**Figure-4:** The pre-test and Post-test Mean values of Shooting Accuracy of Soccer Players.

**Interpretation of Results**

On the basis of the statistical findings, it is quite comprehensively understood that the overall Motor Fitness and Playing Abilities of the players has shown improved significantly after the 8-Week Combined SSG and Functional Training Program on

Selected Motor Fitness and Playing Abilities of the Soccer Players. It may be attribute to the fact that the nature of training program consists of Small Sided Games and Functional Training for 8-week duration. All those functional exercises and drills selected were directly related to improve the required motor fitness and skills which led to enhance the endurance, speed, dribbling and shooting accuracy of the soccer players.

### Testing of Hypothesis

In the beginning of the study hypothesis was formulated as there might be significance improvements in Motor Fitness and Playing Abilities of the soccer players due to 8-week Combined SSG and Functional Training.

Significance improvements was found in the Motor Fitness and Playing Abilities of the soccer players due to 8-week Combined SSG and Functional training on the players, hence hypothesis is accepted.

### Conclusion and Recommendation

1. 8-weeks Combined SSG and Functional Training has improved the Cardiovascular Endurance of soccer players.
2. 8-weeks Combined SSG and Functional Training has improved the Speed of soccer players.
3. 8-weeks Combined SSG and Functional Training has improved the Dribbling of soccer players.
4. 8-weeks Combined SSG and Functional Training has improved the Shooting Accuracy of soccer players.
5. Therefore, it may be fairly recommended that to developed the Motor Fitness and Playing Abilities of the soccer players SSG and Functional Training should be included in the training program.

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