

Assessment of Skill Performance Among the Soccer Players in Different Playing Positions

^[1]Laishram Thambal Singh (PhD), ^[2]Thokchom Somorjit Singh (PhD)

^[1]Department of Physical Education and Sports Science
Manipur University, Imphal, Manipur (India)

^[2]Department of Physical Education and Sports Science
Manipur University, Imphal, Manipur (India)

Abstract: The main purpose of the study was to compare soccer skill performance among the players in different playing positions. For the present study, a total of 45 (N=45) players, 15(n=15) each forward, midfielder, and defender between 18 to 25 (23 ± 0.8) years of age, who had participated in the national competitions from Manipur, were selected randomly. Mor-Christian General Soccer Ability Skill Test was administered to obtain the data for soccer skill performance. Descriptive analysis and analysis of variance (ANOVA) were employed to find the characteristics and means difference among the different playing positions, respectively, and tested at 0.05 confidence level ($p<0.05$). Further post hoc test was applied by using Scheffe's method to determine paired mean differences among different playing positions. The study results reveal non-significant differences in passing and shooting skills performance among the forward, midfielder, and defender positions. In the case of dribbling skills performance, a significant difference was found among the forward, midfielder, and defender positions. Further, the paired-wise mean comparison revealed that a significant mean difference was found between the midfielder and defender positions. However, non-significant mean differences were found between the forward and midfielder, and forward and defender positions. *The study concluded that forwards, midfielders and defenders may have equally integrated fitness and skill ability to make a strong team, and any player can advance to score a goal during the play.*

Keywords: Soccer, skill performance, playing position, passing, dribbling, shooting, Mor-Christian General Soccer Ability Skill Test.

1. Introduction

Positional play helps teams move the ball forward by forming triangles or diamonds that allow the ball dribbler space and various passing choices at any time. A player can free up a teammate in another area to receive the following pass by luring an opponent away from the ball. Successful soccer players emphasize seven qualities of technical skills, physical fitness, tactical awareness, mindset, leadership, passion and commitment (TECHNE, 2023).

Soccer is a game that highly demanded physical, technical, tactical, psychological, physiological efficiency, and best skill performance. Comprehensive physiological, psychological, and tactical qualities are needed to become a professional soccer player (Bangsbo, 1994; Reilly, Williams, Nevill, & Franks, 2000; Williams & Reilly, 2000). Physical fitness may be the most important determinant of sports performance (Kariyawasam, et al. 2019). Physical, technical, tactical and mental skills discriminate soccer players by competitive level (Hoare & Warr, 2000; Martindale, Collins, & Daubney, 2005; Reilly, Williams, Nevill, & Franks, 2000). Therefore, to be able to play soccer and produce an optimal performance the players should be able to master the basic techniques of the game (Menichelli, 2012). Soccer players must be able to perform effectively in various complex dynamic movements with (i.e., passing, kicking, dribbling and heading) and without the ball (i.e., modulating running speed and changes of direction, accelerations, decelerations and jumps) in response to unpredictable environments conditioned by the ball, teammates, and opponents (Cortis et al., 2013). Indeed, many findings conclude that successful performance in technical skills is an important determinant of success in soccer (Rebelo et al., 2013; Vaeyens et al., 2006). All the perfection of physical, physiological, psychological, and skills performance are developed from the long duration training schedules. The aim of training soccer techniques is to improve players' ability to control the ball on the ground or in the air so as to gain possession and overcome opponents (Menichelli, 2012).

Skill can be defined as the ability to select and apply a learned technique in response to the demands of the situation (Ali, 2011). Without strong technical skills, your soccer players cannot score goals or defend effectively (LA 84 foundation, 2007). The principal technical skills are shooting, passing, ball control, and dribbling (Reilly & Holmes, 1983). These technical skills build good performance of the players, team confidence and momentum of the playing actions; however, bad passing, dribbling and shooting skills performance can destroy team coordination and high chances of losing a match. Realization of defensive and offensive strategies is demanding excellent physical fitness and technique like passing skill (Russell and Kingsley, 2011). Passing are the most important skills in soccer, and the soccer players must be acquired consciously and individually (Hargreaves, 1990). Before throwing a good pass, there is a need to be known where and why the ball is thrown (Hughes and Franks, 2005; Ali and Williams, 2009). For taking the good pass, soccer players must have the best position in the soccer field (Howe and Waiters, 1993; Katis and Kellis, 2009). Roughly 80% of the game involves the giving and receiving of passes (LA84 foundation, 2007). No matter how talented the dribbler, it is nearly impossible to penetrate an offense without good passing (LA84 Foundation, 2007). Bad passing destroys a team, but good passing builds team confidence and momentum (Burcak, K. 2015). The passing is an art and largely the art of doing simple things quickly and well (Ali and Williams, 2009; Impellizzeri et al., 2008). Sam (2010) explained also that passing technique is the core of the soccer game; it allows a team to keep possession of the ball, set up attacks, change the direction of play, counter-attack and provide a decisive or final pass.

Dribbling helps the team to keep possession of the ball and beat the opponent (Islam & Kundu, 2020). Best dribbling performance, the players help the space and time of the team players. Dribbling speed is considered critical to the outcome of the game, with elite soccer players performing 150–250 brief intense actions during a game (Mohr, Krustup, & Bangsbo, 2003). Perfection of dribbling skill can be controlling the ball and taking the ball from the opponent players. The better players distinguish themselves by their running speed while dribbling the ball (Malina et al., 2005; Reilly et al., 2000; Vaeyens et al., 2006).

Shooting skill performance is an important factor to win the game. Accurate shooting skills help the best scorer in the match. The scoring goal is the most successful to win the match. So, accurate shooting skill is very important for all the players in a match. Therefore, one of the most highly valued and important skill elements within the game is the ability to score goals (Jinshen et al., 1991). Goal-shooting tests are usually part of a battery of skill tests designed to assess overall soccer playing performance (Reilly & Holmes, 1983; Rosch et al., 2000; Haaland & Hoff, 2003).

Thus, in a soccer match, teams can have higher or lower dispersion values, depending on their offensive and defensive principles (Mota, Silva & Clemente, 2023). Players also need a different combination of skills and sub-skills such as control, contact, pass, and kick, the fact that might lead them to a higher competitive level (Vaeyens et al., 2008; Vaeyens et al., 2006). For the assessment of these skills, a variety of technical tests has been used (Ali, 2011; Ben Ounis et al., 2013; Malina et al., 2005; Röscher et al., 2000; Rebelo et al., 2013).

2. Objective

The main objective of the present study is to investigate and analyze the significant differences in passing, dribbling, and shooting skills performance among forward, midfielder, and defender soccer players positions.

3. Methods

3.1 Selection of Subjects and Test

For the present study, a total of forty-five (N=45) national-level male soccer players of Manipur, fifteen (n=15) each forward, midfielder and defender between 18 to 28 (23 ± 0.8) years of age, were randomly selected. For the selection of subjects, informed consent was obtained from players and reputed clubs of Manipur. Prior written consent had been obtained from the clubs involved to conduct this study. The soccer skill performance was assessed on the players' passing, dribbling and shooting skills.

3.2 Collection of Data

The pertaining data on soccer skill performance were collected on forty-five (N=45) subjects by administering the Mor-Christian General Soccer Ability Skill Test consisting of passing, dribbling and shooting performance tests. The scores were recorded in the number of successful trials for the passing and shooting tests, and the dribbling test was recorded in the nearest second. The test was administered in the morning schedule only.

3.3. Data Analysis

The descriptive and analysis of variance (ANOVA) statistical techniques were employed to determine the primary characteristic of data and significant mean differences, respectively, among the forward, midfielder, and defender players (positions). The significance difference was tested at 0.05 ($p < 0.05$). Further, the post-hoc test was conducted using Scheffe's method to determine paired-wise mean differences among the means of different playing positions.

4. Results

4.1 Description of Data

The pertaining data of soccer skill performance were treated by applying the descriptive analysis to find out the range (R), minimum (Min), maximum (Max), mean (M), standard deviation (SD), and standard errors (SE) shown in table 1.

Table 1: Description of Soccer Skill Performance of Different Playing Positions.

Position	Variable	N	R	Min	Max	M	SD	SE
Forward	Passing	15	5.00	6.00	11.00	7.67	1.50	0.39
	Dribbling	15	9.24	25.59	34.83	28.27	2.24	0.58
	Shooting	15	58.00	46.00	104.00	80.93	17.12	4.42
Midfielder	Passing	15	4.00	7.00	11.00	8.13	1.13	0.29
	Dribbling	15	4.45	25.59	30.04	27.82	1.33	0.34
	Shooting	15	66.00	42.00	108.00	78.93	20.45	5.28
Defender	Passing	15	4.00	6.00	10.00	7.33	1.11	0.29
	Dribbling	15	8.82	26.22	35.04	29.88	2.52	0.65
	Shooting	15	48.00	56.00	104.00	80.40	15.38	3.97

Table 1 reveals that the mean (M) and standard deviation (SD) of passing, dribbling, and shooting skill performance for forward players are 7.67 ± 1.50 , 28.27 ± 2.24 , and 80.93 ± 17.12 , respectively. In the case of midfielders, the mean (M) and standard deviation (SD) of passing, dribbling, and shooting skill performance are 8.13 ± 1.13 , 27.82 ± 1.33 , and 78.93 ± 20.45 respectively. For defenders, the mean (M) and standard deviation (SD) of passing, dribbling, and shooting skill performance are 7.33 ± 1.11 , 29.88 ± 2.52 , and 80.40 ± 15.38 , respectively.

4.2 Mean Comparison and Analysis

The result of the analysis of variance (ANOVA) used to find out the significant mean differences in passing, dribbling and shooting skills among the forward, midfielder and defenders are shown in table 2.

Table 2: Means Comparison of Skill Performance Among forward, midfielder and defenders.

	Positions	Mean	SD	F	Sig. (P-value)
Passing	Forward	7.67	1.50	1.53	0.23
	Midfielder	8.13	1.13		
	Defender	7.33	1.11		

Dribbling	Forward	28.27	2.24	4.03*	0.03
	Midfielder	27.82	1.33		
	Defender	29.88	2.52		
Shooting	Forward	80.93	17.12	0.05	0.95
	Midfielder	78.93	20.45		
	Defender	80.40	15.38		

*Significant at 0.05 level of confidence; $F_{0.05}(2,42) = 3.220$

Table 2 reveals no significant mean differences in passing skill performance among the forward, midfielder and defender positions as the calculated F-ratio=1.53 is lesser than the tabulated F-value = 3.220 at 0.05 levels of confidence ($P>0.05$). However, in the case of the dribbling skill, there were significant mean differences among the forward, midfielder, and defender positions as the calculated F-ratio=4.03 is greater than the tabulated F-value=3.220 ($P<0.05$). Further, there are also non-significant mean differences in shooting skill performance among the forward, midfielder, and defender positions, as the calculated F-ratio=0.05 is lesser than the tabulated F-value=3.220 ($P>0.05$). In addition, the post-hoc test (Scheffe's method) is employed to determine paired-wise mean differences in dribbling skill performance of different playing positions, as there are significant differences. The results are presented in table 3.

Table 3: Paired Mean Comparison for the Dribbling Skill Performance Among the Different Playing Positions.

Mean			Mean Difference	SE	Sig. (P-value)
Forward	Midfielder	Defender			
28.27	27.82		0.45	0.76	0.84
	27.82	29.88	2.06*	0.76	0.04
28.27		29.88	1.61	0.76	0.12

*Significant at 0.05 level of Confidence.

Table 4 shows the significant mean difference in dribbling skill only between midfielder and defender positions, as their mean difference was 2.06 ($P<0.05$). Non-significant mean differences are shown between forward and midfielder and forward and defender ($P>0.05$).

The mean differences in passing, dribbling and shooting skill performance among the forward, midfielder and defender are graphically presented in figure 1, 2 and 3.

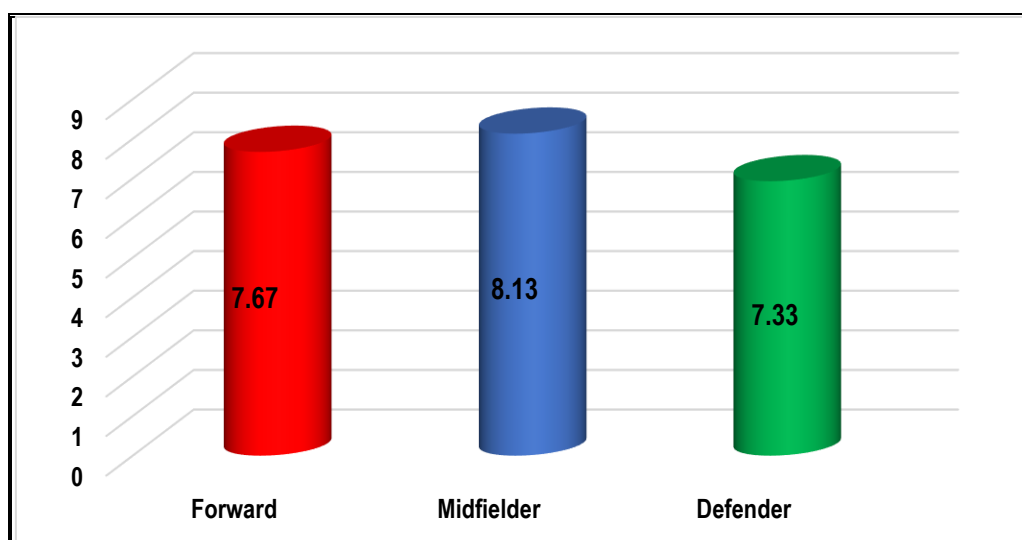


Fig. 1: Mean Differences in Passing Skill Performance Among the Different Playing Positions.

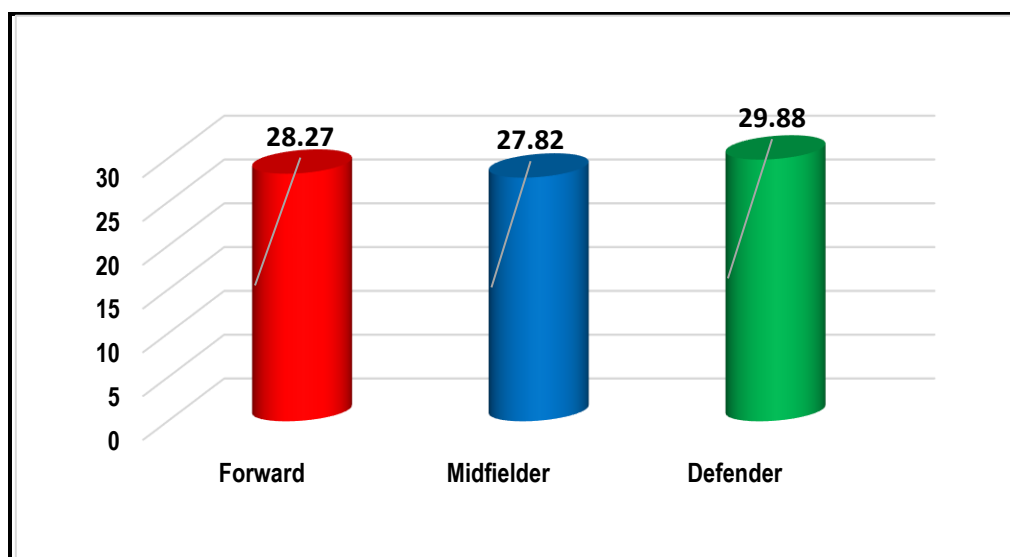


Fig. 2: Mean Differences in Dribbling Skill Performance Among the Different Playing Positions.

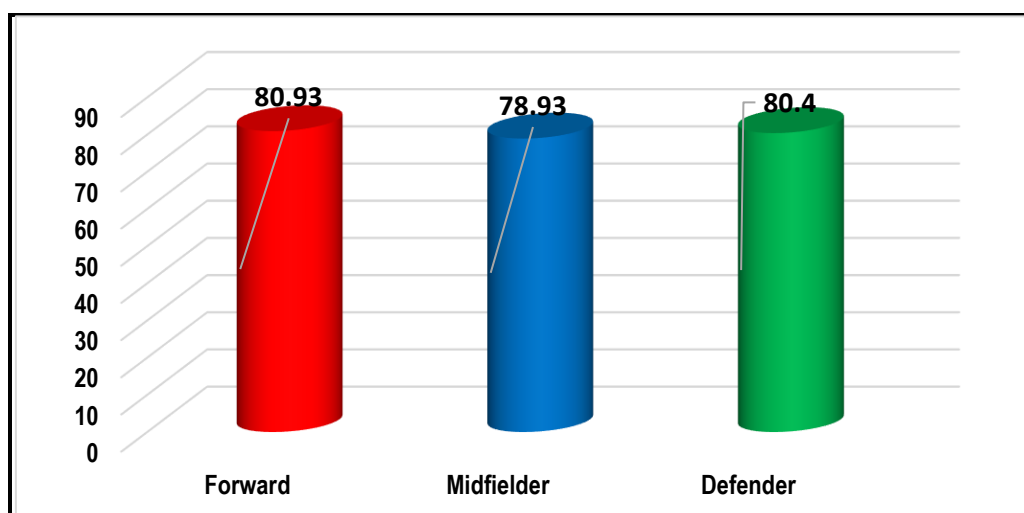


Fig. 3: Mean Differences in Shooting Skill Performance Among the Different Playing Positions.

5. Discussion

In the case of passing skill performance, the mean value of the midfielders had higher passing skill performance than forwards and defenders. The statistical result of the study revealed that there were non-significant differences in the passing skill performance among the forwards, midfielders and defenders. The results showed the high passing skill ability required of all soccer players playing different positions. The players of different playing positions in offensive and defensive situations in a match perform different kinds of précised passing skills. The number of passes and passing effectiveness correlate positively with the match outcome, with players in all positions making the greatest number of passes, and achieving the highest pass accuracy, in won matches (Bradley et al., 2013). Passing skill activities balance the match, reduce pressure from the defense, create time and space, and maintain good possession among the team players. Therefore, every player of any position has equal passing skill performance in soccer teams. Malina et al. (2005) reported no significant differences in ball control, dribbling, passing, and shooting in youth players based on position. Vale and colleagues (2009) also concluded that there were no significant differences in the passing skill of players aged 17-18 years old according to their playing position. In the case of dribbling skill performance, the mean value of the midfielders had better dribbling skill performance than the forwards and defenders. The result of the study revealed that there were found significant differences in dribbling skill performance among the forward, midfielder, and defender positions. Further, a post hoc test was administered to determine the paired-wise mean

difference and found a significant mean difference in dribbling skill performance between midfielder and defender positions. However, there were non-significant mean differences in dribbling skill performance between the forward and midfielder; and forward and defender positions. This result might be due to the midfielders perform a specific role to balance the match's momentum. They are to assist both defense and offense in the match. As a result, they have done more passing, dribbling, and shooting. Forward players play a crucial role in scoring to win the match. They perform precise passing, dribbling, shooting, and ball control in the match. On the other hand, defenders have lesser dribbling ability than midfielders and forwards. Because defensive players defend the goals from opponents' attacks, they always try to intercept the opponent's ball and have quick passing skills for their team players. Gioldasis and colleagues (2017) conducted that midfielder indicated higher juggling ability than all the other positions as well as higher dribbling performance than the full-backs. Male midfielders also perform higher than central defenders in dribbling skill, which is probably explained by the fact that they cover longer distances (Mohr et al., 2005) and possess the ball for longer than players of other playing positions (Dellal et al., 2010). In the case of shooting skills, the mean values of the forward players had more accurate shooting skills performance than the defenders and midfielders. However, the result of the study revealed a statistically non-significant difference in shooting skills performance among the forwards, midfielders, and defenders. The result might be due to the shooting precision of the players having more chances to win the match. Regarding the technical aspects of different positions, there were no significant variations in passing, kicking, and shooting (Joo & Seo, 2016).

6. Conclusion

The result of the study showed non-significant differences in the passing and shooting skills performance among the forward, midfielder and defender players (positions) in soccer. However, there were significant differences in dribbling skills performance among the forward, midfielder, and defender players (positions). Further, statistically, a critical difference was found between the midfielder and defenders only in dribbling skill performance and no differences in dribbling skill performance between the forward and midfielder and forward and defender positions. Forwards, midfielders and defenders have equally integrated fitness and skill performance to make a strong team and any of them could advance to score a goal in the game.

INFORMED CONSENT STATEMENT

Informed consent was obtained from all players involved in the study. Written consent had been obtained from the clubs involved to publish this paper.

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CONFLICT OF INTEREST

The study was conducted in the absence of any commercial or financial relationships, and the authors declare no conflict of interest.

CORRESPONDING AUTHOR

Laishram Thambal Singh (PhD.)
Associate Professor
Department of Physical Education and Sports Scienc
Manipur University, Imphal, Manipur (India)
Email: thambalsingh@gmail.com

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