

An Examination of Dribbling Performance among Handball Players with Special Reference to Playing Positions

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ABSTRACT

The present study was carried out to examine how dribbling performance differ among handball players with respect to their playing positions. A total of sixty male handball players who participated in the Bharathidasan University Inter-collegiate tournament (2024–2025) were selected for this study. The players were categorized based on their level of experience (novice and experienced) and playing positions (wingers, backs, and center players). The selected performance variable, namely dribbling ability, was assessed using the Sachin Shekhawat Handball Skill Test Battery. The collected data were analyzed using descriptive statistics and factorial analysis of variance to identify differences based on level and position. The findings revealed that experienced players performed significantly better than novice players, indicating the importance of training and experience in enhancing skill performance. However, no significant differences were observed among players of different playing positions, suggesting that dribbling is a fundamental skill required equally across all positions. Additionally, the interaction between level and position was not significant, indicating that the influence of experience remains consistent regardless of playing role. In conclusion, the study highlights that player experience plays a vital role in improving performance variables, while positional differences may not significantly influence basic skills like dribbling. These findings can help coaches design more effective and inclusive training programs for handball players.

KEYWORDS: Dribbling, Shooting, Handball Players, Playing Positions.

INTRODUCTION

Handball is a fast-paced, high-intensity team sport that demands a combination of physical fitness, technical skills, and tactical awareness for optimal performance. Players are required to execute a wide range of movements such as sprinting, jumping, passing, dribbling, and shooting under dynamic and competitive conditions. These actions depend largely on well-developed performance variables, which include speed, agility, coordination, strength, and specific skill-related abilities. Performance in handball is influenced not only by general physical and technical abilities but also by the specific demands of different playing positions. The game typically consists of specialized positions such as wingers, backs, and center players, each with unique roles and responsibilities. Wingers are generally required to exhibit high speed and agility for fast breaks and wing attacks, backs are expected to demonstrate powerful shooting and tactical play, while center players play a key role in organizing attacks and maintaining game flow. Therefore, it is important to examine whether performance variables differ based on playing positions. Previous research has emphasized that player performance in team sports is often influenced by both skill level and positional requirements. According to Helmut Wagner, performance in handball is a multidimensional construct influenced by physical, technical, and tactical components. Similarly, studies have shown that experienced players tend to perform better than novice players due to enhanced motor learning, better decision-making, and greater game awareness (Wagner et al., 2014). However, there is limited research focusing specifically on how performance variables vary across different playing positions in handball. Understanding these differences can provide valuable insights for coaches and trainers in designing position-specific training programs and improving overall team performance.

METHODOLOGY

The purpose of the study was to analyze the dribbling performance of handball players in relation to playing positions. Men Handball players from Bharathidasan University Inter-collegiate Handball tournament during 2024-25 were selected. In this tournament, 30 novice players which include 10 wingers, 10 backs and 10 center and 30 experienced players which include 10 wingers, 10 backs and 10 center were selected as subjects randomly. The performance variables of handball players was assessed by Sachin Shekhawat Handball Skill Test Battery. The statistical technique includes descriptive statistics and factorial ANOVA.

RESULTS AND DISCUSSION

TABLE-I: DESCRIPTIVE STATISTICS ON DRIBBLING

Level	Position	Mean	SD (±)
Novice	Wingers	0.19	0.01
	Backs	0.18	0.02
	Center	0.21	0.01
Experienced	Wingers	0.13	0.01
	Backs	0.15	0.02
	Center	0.14	0.03

Table – I showed the descriptive statistics — Mean and Standard deviation of novice Wingers, Backs & Center players and experienced Wingers, Backs & Center players.

TABLE-II: 2 x 3 FACTORIAL ANALYSIS OF VARIANCE ON DRIBBLING

Source of Variance	Sum of Squares	df	Mean Square	F
Factor 'A' (Level)	11340.24	1	11340.20	50.86*
Factor 'B' (Position)	322.22	2	161.11	0.72
Factor 'AxB' (Interaction)	1110.27	2	555.13	2.49
Error	12038.54	54	222.93	--
Total	--	60	--	--

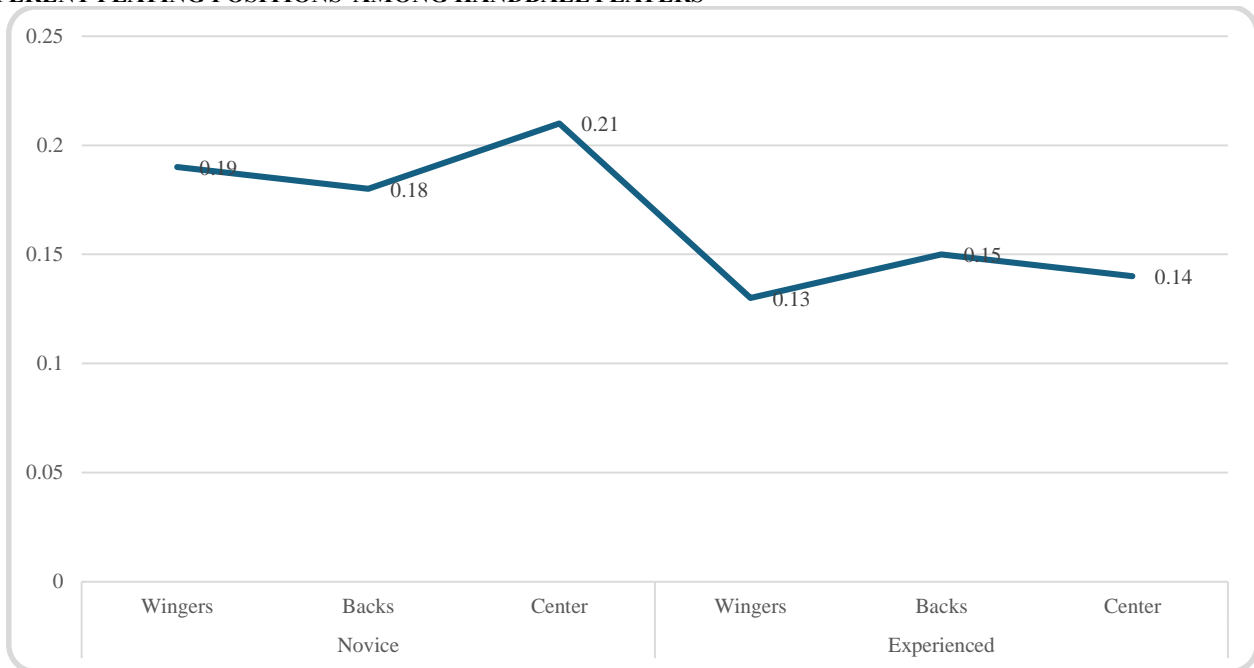
F(1,54)=4.01, p≤ .05

F(2,54)=3.16, p≤ .05

The results of the factorial analysis reveal interesting insights into the effects of training level (Factor A), playing position (Factor B), and their interaction on the selected performance variables of handball players. The analysis shows that Factor 'A' (Level) has a significant influence on performance variables, as the obtained F-value (50.86) is much higher than the required value at 0.05 level of significance. This indicates that differences in training level (or intervention) have a strong and meaningful impact on the performance of handball players. In simple terms, the level of training plays a crucial role in improving performance. On the other hand, Factor 'B' (Playing Position) does not show a significant effect, since the obtained F-value (0.72) is lower than the required table value. This suggests that performance variables do

not differ significantly based on playing positions. In other words, players across different positions perform similarly in the selected variables. Further, the interaction effect ($A \times B$) between training level and playing position is also found to be not significant, as the F-value (2.49) is below the required level. This indicates that the effect of training level on performance is consistent across all playing positions, and no combined effect of these two factors was observed.

FIGURE – I: SHOWS THE SPORTS ACHIEVEMENT MOTIVATION OF NOVICE AND EXPERIENCED PLAYERS AT DIFFERENT PLAYING POSITIONS AMONG HANDBALL PLAYERS



DISCUSSION

The findings of the present study provide clear evidence regarding the influence of playing level and position on the dribbling performance of handball players. The descriptive statistics indicate that experienced players demonstrated better dribbling performance compared to novice players across all playing positions. This improvement may be attributed to greater exposure, systematic training, and enhanced neuromuscular coordination developed over time. The factorial ANOVA results further support these observations. The significant effect of Factor 'A' (Level) indicates that experience plays a crucial role in determining performance efficiency. Experienced players showed superior dribbling ability, which may be due to improved motor control, decision-making ability, and skill execution developed through repeated practice and competitive exposure. These findings are in line with the principles of motor learning, which state that skill performance improves with practice, feedback, and experience (Schmidt & Lee, 2011). In contrast, Factor 'B' (Playing Position) did not show a significant effect on dribbling performance. This suggests that dribbling ability is a fundamental skill required equally across all playing positions such as wingers, backs, and centers. Regardless of positional roles, players are expected to possess similar levels of ball control and movement efficiency. This finding is supported by earlier studies which reported that basic technical skills in team sports are not always position-dependent but rather universally required (Wagner et al., 2014). The interaction effect ($A \times B$) was also found to be non-significant, indicating that the influence of playing level on dribbling performance is consistent across all positions. In other words, experienced players outperform novice players irrespective of whether they are wingers, backs, or centers. This suggests that the benefits of training and experience are generalized and not confined to specific positional roles.

CONCLUSION

1. There was a significant difference among novice and experienced players on dribbling performance of handball players.

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