

## Footwork on jump shots in basketball

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### Introduction

Jump shot has been one of the most important skills in basketball. It has been shown that a total number of 83,408 jump shots were performed, which is the highest among the six shot types, in 2009–2010 NBA regular season (Csapo, Avugos, Raab, & Bar-Eli, 2014). Movements performed before shooting plays an important role in basketball shooting (Okazaki, Rodacki, & Satern, 2015), and different footwork on jump shot may also have an influence on the shooting result. How is the specific execution of jump shot manifested in the basketball games and what are the effects of the various types of footwork on the result of jump shot? The purpose of the study was to examine the prevalence of different types of footwork on jump shot and its influence to the shooting accuracy.

### Methods

Eight basketball games from the quarterfinals of the 2014-2015 University Basketball Association of Taiwan were downloaded from the YouTube website for analyses. All the field goals taken were recorded and categorized as one of the three types- jump shot, others and fouls. Jump shots were further classified as “step”, “turn” “jump stop”, “stride stop” and “step back”. Simi Scout 2.0 was used for data recording, Micro Soft Excel 2013 was used for data organization, and IBM SPSS 21 was used for statistical analyses. Kappa statistics was used to evaluate the between and within raters’ reliability. Kappa values were all over .8. Non-parametric statistical tests were applied to data analyses.

### Results

The results showed that in average, 35.44 jump shots, 33.25 other types of field goals, and 7.44 fouled field goals occurred per team/game. Step occurred 32.26 times per game, whereas jump stop 14.00, stride stop 8.38, step back 3.88 and turn, 3.5. For the shooting percentage, no significant differences were found for any comparisons among different types of jump shots.

### Discussion & Conclusion

The finding of the study confirms that jump shots play a significant role in the field goals attempts of basketball games. When categorizing the different footwork of jump shots, There were significantly more step than any other type of jump shot, while step back and turn were the least ( $p < .05$ ). Jump stop reported significantly more than stride stop between the most and the least ( $p < .05$ ). These data has not been reported in the literature and may provide useful information for players and coaches for training preparation. Future study may extend the scope and analyze games of different levels and different gender in order to obtain a broader perspective of the prevalence of the jump shot footwork in basketball.

### References

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- Okazaki, V. H., Rodacki, A. L., & Satern, M. N. (2015). A review on the basketball jump shot. *Sports Biomechanics*, 14(2), 190-205.