IMPORTANCE OF ASSISTING IN FOOTBALL CONSIDERING THE FINAL OUTCOME OF THE MATCH AND LEAGUE COMPETITION SYSTEM

Dario Bašić, Valentin Barišić and Dražan Dizdar

Faculty of Kinesiology, University of Zagreb, Croatia

Original scientific paper

Abstract

Based on 88 matches in 2014/2015 first Croatian football league we established the importance of assisting as a situational efficacy indicator of final outcome of the match and the league competition system. Applying Mann-Whitney test showed that assisting brings a statistically significant difference for the defeated team (p=0,00). Also, observing the correlation (0,84) we can see a high positive relation of assisting to end result in league system of competition. Teams that have a greater number of assisting through a longer time period exhibit a higher degree of technical and tactical quality both in a match and in that time period.

Key words: situational efficacy, notational analysis, football, assisting

Introduction

A football match is a confrontation of two teams. Team controlling the ball is in offense phase, while the other one is in defense phase. Offense team organizes strikes through players cooperating and communicating with each other individually in order to create beneficial conditions for scoring a goal. On the other side, defense team is trying to stop the offense and claim the ball with no goals received, all according to the rules. Offense phase starts when one team's players gain control over the ball in any part of the field thanks to the opponent's mistake or their own players' activity in defense phase. During offense phase, players usually come to chances for goal scoring after cooperating with others. A quality cooperation of two or more players leads to goal-scoring opportunity. If the goal is scored, passes that led to it need to be noted as situational efficacy indicators - this is called assisting. Assisting is an event during offense phase when one player creates an opportunity for the other player to score a goal leading to a goal kick from no more than third touch (if no blocking occurred) or a one-on-one situation with opponent goalie and (regardless of number of touches) scored a goal (Bašićet al., 2015).

Assisting as a situational efficacy indicator can be relevant in football when related to match outcome and team placement in league system of competition.

Methods

Statistical analysis

To establish reliability of gathered data we used intra-observer variability for differences between data gathered by the same notator on two different occasions (Hughes et al., 2002, 2003, 2004). For assisting we have reliability of 100%. To establish differences between winning team and the defeated team, we used Mann-Whitney test and Pearson coefficient of correlation to determine the connection of performance indicators to final outcome of the match.

Table 1. Arithmetic mean (AM) and standard deviation (SD) of assisting for the winning team (WIN) and defeated team (DEF) with z-value (z) to determine differences and error significance (p)

	AM	SD	Z	р	
WIN	1,48	1,18	6.60	0,00	
DEF	0,23	0,46	6,60		

Table 2. Final distribution of teams after a half-season (TEAM), total number of matches played (NM), number of victories (NOV), draws(D) and losses (LOSS), as well as the number of points (PTS), number of points per match (PTS/M) and total number of assisting (N-AS), arithmetic mean of assisting (AM-AS) and coefficient of assisting correlation to final placement (r)

TEAM	NM	NOV	D	LOSS	PTS	PTS/M	N-AS	AS-AS		
Dinamo	17	13	4	0	43	2,53	24	1,41		
Rijeka	18	12	3	3	39	2,17	24	1,33		
Hajduk	17	8	5	4	29	1,71	14	0,82		
Lokomotiva	18	7	4	7	25	1,39	22	1,22		
Zagreb	18	6	6	6	24	1,33	13	0,72		
SlavenBelupo	17	5	5	7	20	1,18	6	0,35		
Split	17	3	8	6	17	1,00	8	0,47		
Istra 1961	18	3	7	8	16	0,89	8	0,44		
Osijek	18	4	3	11	15	0,83	8	0,44		
Zadar	18	3	3	12	12	0,67	12	0,67		
r=0,84										

Analysis material

Research was done on 88 matches from MAXTV first Croatian football league. We analyzed one half-season consisting of 90 matches. Due to technical difficulties one match was not filmed, and one ended in score 3:0 because of rule-breaking.

Sample

In this research, entities are teams. First Croatian football league has 10 clubs.

Variable sample

Matches were described using notated performance indicators (variables) of assistance (Bašićet al.,2015)

Data collection

The matches were filmed on HDD/DVD in form of a video. Using specialized computer tool – Courteye – matches were analyzed and prepared for data analysis. Five notators worked on this project.

Discussion and conclusion

Based on results (Table 1 and 2) featuring a high corelation coefficient (r=0,84) as well as the difference between arithmetic means of the winning team (AS=1,48) and the defeated team (AS=0,23), which is statistically significant (p=0,00), we can conclude that *assisting*, as a situational efficacy

indicator, is a statistically significant differentiator between winner team and defeated team, and a high positive corelator to final placement in a league system of competition. These results match those of other author (Lago-Penas et al., 2010; Lago-Ballesteros, Lago-Penas and 2011). A significantly larger number of assisting points to a greater quality of time-space match relations. Assistance requires a high level of technical knowledge in a player - elements like passing the ball, reveal, combinatorics, empty space run-ins are all very important for efficient team cooperation which needs to lead to goal scoring. Assisting also points to individual quality of the player, who must often create a situation which will lead to assisting through dribbling and feinting. A greater number of assisting is related to a greater number of goal scores, but it also speaks volumes about efficiency and individual quality of the player scoring a goal. In most cases, a goal score is a result of teamwork, but also of an individual player, who needs to read time-space qualities of the fiels and control them meaning they need to use individual and group offense tactics. Based on results we got for assisting variable, we can conclude that there is a statistically significant difference between winner team and defeated team, which is in high correlation to final placement in league system of competition. Teams with greater number of assisting scored more goals, but also manifested more quality management skills during the match.

References

Bašić, D., Barišić, V., Jozak, R., & Dizdar, D. (2015). *Notacijska analiza nogometnih utakmica*. [Notational analysis of football matches. In Croatian.]. Zagreb: Leonard Media.

Hughes, M. (2004). Notational analysis – A mathematical perspective. *International Journal of Performance Analysis in Sport*, *4*(2), 97-139.

Hughes, M. (2004a). Performance analysis – a 2004 perspective. *International Journal of Performance Analysis in Sport*, *4*(1), 103-109.

Hughes, M., & Franks, I.M. (2004). *Notational analysis of sport: Systems for better coaching and performance in sport*. London: Routledge.

Hughes, M., Cooper, S.M., & Nevill, A. (2002). Analysis procedures for non-parametric data from performance analysis. *International Journal of Performance Analysis in Sport*, *2*(1), 6-20.

Hughes, M., Cooper, S.M., Nevill, A., & Brown, S. (2003). An example of reliability testing and establishing performance profiles for non-parametric data from performance analysis. *International Journal of Computer Science in Sport*, 2(1), 34-56.

Hughes, M.D., & Bartlett, R.M. (2002). The use of performance indicators in performance analysis. *Journal of Sports Sciences*, 20(10), 739-754.

Hughes, M.D., Cooper, S., & Nevill, A. (2004). Analysis of notation data: Reliability. InM.D.Hughesand I.M. Franks (ed.), *Notational analysis of sport* (str. 189-205). New York: Routledge

Lago-Penas, C., & Lago-Ballesteros, J. (2011). Game location and team quality effects on performance profiles in professional soccer. *Journal of Sports Science and Medicine*, 10(3), 465-471.

Lago-Penas, C., Lago-Ballesteros, J., Dellal, A., & Gomez, M. (2010). Game-related statistics that discriminated winning, drawing and losing teams. *Journal of Sports Science and Medicine*, 9(2), 288-293.

VAŽNOST ASISTENCIJE U NOGOMETU OBZIROM NA KRAJNJI ISHOD UTAKMICE I SUSTAV LIGE NATJECANJA

Sažetak

Na temelju 88 utakmica prve Hrvatske nogometne lige sezone 2014/2015 utvrđivana je važnost asistencije kao pokazatelja situacijske efikasnosti na konačan ishod utakmice i ligaški sustav natjecanja. Primjenom Mann-Whitneyjevog testa dobiveno je da asistencije statistički značajno razlikuju pobjedničke od poraženih ekipa (p=0,00). Isto tako, promatranjem koeficijenta korelacije (0,84) vidljiva je visoka pozitivna povezanost asistencija s krajnjim plasmanom u ligaškom sustavu natjecanja. Ekipe koje kroz duži vremenski period imaju veći broj asistencija ukazuju na viši stupanj tehničko-taktičke kvalitete tijekom jedne utakmice, ali i dužeg vremenskog perioda.

Ključne riječi: situacijska efikasnost, notacijska analiza, nogomet, asistencije

Received: August 17, 2016
Accepted: September 5, 2016
Correspodence to:
Dr.sc. Dario Bašić, PhD.
University of Zagreb
Faculty of Kinesiology
Zagreb, Croatia 10000, Horvaćanski zavoj 15
E-mail: dariobasic@yahoo.com

93