

Increasing Scoring Certainty in Soccer: Evidence from Playing Skills-related Differences

Albin Tenga

Department of Coaching and Psychology, Norwegian School of Sport Sciences

Introduction

The notion of opposition interaction states that the analysis of performance for invasion games must consider the interaction between the two opposing teams to be more valid (Gréhaigne et al., 1997). Therefore, goal scoring in soccer can be considered to be a result of the process of creating complete penetration against the opposition defence. Applying this concept, we managed to distinguish between goals scored under *high degree of defensive control* (lower scoring certainty) and those scored under a more favourable *low degree of defensive control* (higher scoring certainty) conditions in the opposing team. Thus, the aim of this study was to investigate the relative influences of playing level, offensive skills and fatigue on creating penetration prior to goal scoring in soccer.

Methods

The sample included 2600 team possessions ended with a goal from seasons 2011, 2012 and 2013 of the Norwegian top professional league (1951 goals) as well as seasons 2011-12 and 2012-13 of the UEFA Champions league (649 goals), after excluding 192 (6.9%) goals from the penalty kicks. The sample was further distinguished into goals scored under *high* (984 goals) and *low* (1592 goals) degree of defensive control at the moment of finishing. Kappa correlation coefficients were used to test inter-observer reliability for observational variables, while Chi-square analysis was applied to determine if there was an association between goal scoring factors and the probability of scoring goals under low degree of defensive control. Multiple logistic regression procedure was also used to determine odds ratio in which the dependent variable was whether or not a goal was scored under low degree of defensive control. We used a significance level of $P < 0.05$ in all tests.

Results

Kappa correlation values, ranged from 0.43 to 0.95, showed acceptable levels of inter-observer reliability for all observational variables used (Altman, 1991). Multiple logistic regression analyses revealed that only variables of offensive skills had influence on whether a goal was scored under a more favourable condition (low degree of defensive control); with scoring from outside the 16 m area showing the greatest influence compared to scoring within the 5 m area (OR=4.91, 95% confidence interval: 3.48 to 6.93, $P=0.001$). The factors of playing level ($P=0.241$) and fatigue ($P=0.081$) showed no significant effect.

Discussion & Conclusion

The results suggest that, regardless of the level of play and time of scoring, goal-scoring certainty may improve by 56% up to almost five times if soccer teams employ certain types of playing skills compared to others. These skills include the ability to perform five or more passing sequences compared to four or less (i.e. outplaying the opposition), to use four or more finishing touches compared to one touch (i.e. running with the ball and dribbling), and the ability to shoot from outside of the 16 m area compared to from within the 5 m area of the pitch (e.g. scoring from direct free kicks).

References

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