

Title:

The concept of validity and its application to match analysis in soccer

Abstract:

It is apparent that ensuring the validity of the collected data is important for soccer match analysis to meet its intents and purposes effectively. However, most studies on soccer match performance do not adequately address the critical issues of validity related to conceptual and methodological aspects of their methods. Thus, the purpose of this talk is to highlight the challenges facing soccer match analysis as a scientific method and suggest the use of some quantitative statistical techniques as the alternative approaches.

Methodological aspects rarely used in the contemporary studies were carefully considered when we planned a series of studies on the effectiveness of soccer playing tactics. The sample included two data sets: 3260 random team possessions and 476 goal-producing team possessions from matches played in the Norwegian male professional league.

Results from these specific studies show important differences contrasting between quantitative and qualitative variables, between unidimensional and multidimensional data, between univariate and multivariate analyses, between overall and subgroup analyses and important similarity between case-control and cohort study designs.

In sum, the findings from these studies suggest that adequately addressing the conceptual and methodological shortcomings is critical to improve the validity of the collected data for soccer match performance analysis.