



Title:

The positional stability of motor skills and abilities for talent selection in elite youth football

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Abstract:

Introduction:

Positional stability is considered an important criterion for the viability of a talent predictor (Abbott & Collins, 2002). If the ranking order of a group of potential talents for a performance-related feature does not remain stable over a certain time period, that feature is not suitable as a means of predicting future performance. The use of motor tests is widespread in football. However, it is largely unclear whether they are suitable as instruments for predicting future success at a relatively early point in an athlete's career. To test this, the positional stability of a battery of football specific motor tests was determined over a period of 3 years.

Methods:

Starting in summer 2011, the technical skills and fitness-related abilities of 144 top junior-league football players ($M_{age, t_1} = 12.27$, $SD = 0.29$) were measured at intervals of half a year, six times in total, using nine motor tests. Spearman's rank correlation was used to determine the positional stability of these tests as well as the two dimensions Football Technique and Fitness (Zuber & Conzelmann, 2012) over a period of 3 years, based on the test results at t_1 .

Results:

The positional stabilities of the nine tests between t_1 and t_2 lie between $.25 \leq r \leq .79$. As expected, increasing the forecasting horizon to t_6 leads to a decline in positional stability to $.07 \leq r \leq .58$. Overall, the fitness-related abilities display higher positional stability than the football-specific skills. The dimensions Football Technique and Fitness only differed marginally, however, and both display medium positional stability.

Discussion/Conclusion:

It may be conjectured that technical skills display lower positional stability than fitness-related abilities because of their higher specificity and the lower re-test reliability of the tests using a ball. Overall, it emerges that technique tests should not be used individually as talent predictors, but that summarising them to form an overall technique score leads to a reasonably acceptable positional stability. This suggests that talent development needs to be viewed holistically, as has already been promisingly done by applying the person-oriented approach (Bergman, Magnusson & El-Khoury, 2003) to talent research (Zuber, Zibung & Conzelmann, 2014).

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