



Reliability and construct validity of soccer skills tests that measure passing, shooting, and dribbling

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Abstract

In this study, we examined the reliability and construct validity of new soccer skills tests. Twenty soccer players (10 professional and 10 recreational) repeated trials of passing, shooting, and dribbling skills on different days. Passing and shooting skills required players to kick a moving ball, delivered at constant speed, towards one of four randomly determined targets. Dribbling required players to negotiate seven cones over 20 m. Each trial consisted of 28 passes, 8 shots, and 10 dribbles. Ball speed, precision, and success were determined for all tests using video analysis. Systematic bias was small (<9% in all measures) and all outcome measures were similar between trials. Test-retest reliability statistics were as follows: ball speed (passing, shooting, dribbling; coefficient of variation [CV]: 6.5%, 6.9%, 2.4%; ratio limits of agreement [RLOA]: 0.958 \times/\div 1.091, 0.990 \times/\div 1.107, 0.993 \times/\div 1.039), precision (passing, shooting, dribbling; CV: 10.0%, 23.5%, 4.6%; RLOA: 0.956 \times/\div 1.147, 1.030 \times/\div 1.356, 1.000 \times/\div 1.068), and success (passing, shooting, dribbling; CV: 11.7%, 14.4%, 2.2%; RLOA: 1.017 \times/\div 1.191, 0.913 \times/\div 1.265, 0.996 \times/\div 1.035). Professional players performed better than recreational players in at least one outcome measure for all skills. These findings demonstrate the reliability and validity of new soccer skill protocols.