MEASURING REPRESENTATIVE DESIGN OF PASSING PRACTICES IN FUTSAL

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Introduction
Team sports such as futsal are tactically sophisticated requiring constant movement adaptations within and between players. The design of appropriate training tasks that represent the contextual characteristics of the game (representative design) is an important challenge for coaches. The aim of this study was to provide a reliable measure of representative task design for passing tasks during futsal training.

Methods
Two groups of four male futsal senior players (26.25±4.33 yrs) were positioned in the corners of two squares (5x5m). Two balls were used in each group. The ball carriers' passing direction was manipulated in four ways: i) pass to the player in front; ii) to the player diagonally opposite; iii) to the player in front (if he hadn't ball possession) or to the player opposite; iv) to any player since he hadn't ball possession. Ball motion trajectories were captured and digitized using TACTO software [1]. Ball velocities in practice and in an actual match were recorded and submitted to $ApEn_{Ratio\ Random}$ analysis [2] to establish performance regularity. Data in each condition were compared by repeated measures analysis of variance.

Results & Discussion
Mean ApEn values increased in value from the 1st to 4th passing condition, approaching values observed in games (1st condition: 0.28±0.028, 2nd condition: 0.31±0.04, 3rd condition: 0.36±0.02, 4th condition: 0.42±0.04, actual game: 0.42±0.03). Significant differences were observed between: actual game and the first three conditions ($p<.05$); the first and last two conditions ($p<.05$) and the 3rd and 4th conditions ($p<.05$). Values in 4th and game conditions were not significantly different ($p>.05$).

Conclusion
Results suggested that regularity of ball velocity might be a reliable measure to understand how different training tasks can relate to match performance. By increasing the number of opportunities to pass, the irregularity of ball velocity also increased, signifying that players are constrained to perceive opportunities to act as in actual game performance.

References
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