Transition speed and its effect on attacking performance indicators and outcomes in the Hyundai A-League

Turner, B.J. & Sayers, M.G.L. - School of Health and Sport Sciences, University of the Sunshine Coast

Introduction
A key area of interest in Football concerns how teams transition from defence into offence following a turn-over in possession (Acar et al., 2007). Theoretically, once a team gains possession, players must try to reach the target as rapidly as possible in order to capitalise on any space that may have resulted from the turnover of possession (Garganta et al., 1997). During a match fast transitions have been found to result in a higher conversion ratio of shots per goal then slower attacks (Hughes and Franks, 2005; Yiannakos and Armatas, 2006). This implies that teams should adopt rapid counter-attacking strategies to benefit from the increased likelihood of scoring a goal when the opportunity arises. Although these studies appear to link an increase in transition speed with an increased likelihood of scoring a goal, very few have analysed the transition as a whole. The purpose of this study was to determine the relationships between transition speed, the various aspects that define a transition (e.g. passing characteristics, position on the field, etc.) and positive/non-positive outcomes during high level Football matches.

Methods
Data Collection
Notational analysis was conducted by the same analyst from recorded television broadcasts on all transitions in 27 football matches played by a team as part of the 2009-2010 A-League competition. For the purpose of this study a transition was defined as the point when the team gained possession of the ball in open play and ceased when that same team either lost possession of the ball, passed the ball back to their goal keeper, a stoppage occurred or when a shot at goal occurred. For a transition to be considered valid two complete passes must have occurred between teammates or an individual must have dribbled the ball for more than 15 m. Numerous data were recorded including; field position (Figure 1), pass sequence and length and transition outcome.

Data Analysis
Chi-squared (χ²) tests and Pearson’s Product Moment Correlation testing was used to establish relationship between transition speed and the other test variables. A series of two-way analysis of variance (ANOVA) were used to test for differences in transition speeds between each of the coded field positions and pass sequences for each outcome.

Results
A total of 1105 transitions were recorded over the season with an average 41 of transitions per match. No significant difference (P= 0.133) was noted in mean transition speeds between positive (3.9 ± 2.1 m/s) or non-positive outcomes (3.8 ± 2.0 m/s). However, the position on the field where a transition started significantly affected the resulting mean transition speed (Figure 2 and Table 1).

Conclusions
This study found no significant relationships between the average transition speeds of positive and non-positive attacking outcomes. This result is not supported by the vast majority of previous studies that have analysed attack speed in Football. However, subsequent performance indicators such as starting transition position, pass sequence length, and number of players involved demonstrated a significant relationship with transition speed. The same variables were also found to exhibit a significant relationship with positive/non-positive transition outcomes. In view of these results it can be concluded that the team produced positive and non-positive transition outcomes irrespective of how fast they transition. However, performance indicators that formed part of the build-up play significantly affected transition speed and transition outcomes.

Practical Implications
This study showed that if the team examined wanted to transition fast, they should do so by minimising the amount of players and passes involved to three or less.