DYNAMICS OF COACH’S GAME PRACTICAL KNOWLEDGE IN BASKETBALL

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Basketball game dynamics can be affected by some perturbation factors (Hughes et al., 1998). Small and particular events can modify the whole contest and provoke some unbalanced circumstances denominated by game researchers as critical game moments (Ferreira, 2006). This paper aims to demonstrate that coach’s practical knowledge about basketball game can be interpreted throughout the main concepts produced by dynamical systems theory.

Seventeen top-level basketball Portuguese coaches were the sample of this study. It was constructed a semi-structured interview with five main topics: (1) a general overview of critical events of game; (2) an evaluation of critical game situations; (3) a temporal dynamics perception; (4) a score dynamics perception and (5) the even/uneven conception of game dynamics. Contents and construction validity were tested by three expert coaches. A categorical system was built with the intention to analyze each interview and to reduce the amount of data. Throughout a peer examination process the internal validity of this system was verified. The intra-codification reliability determined a 91.3% of agreement according to Bellak’s estimation.

Coaches understood points difference as a function of the maximum modal value that each ball possession can assume in basketball game. Simultaneously they assumed that game’s criticality justifies the division of tempo into two independent temporal blocks: the first three periods (1st, 2nd and 3rd) and the 4th game period. It means that the importance of points difference has to be adjusted to the game period in question. Even/uneven perception is the third factor involved in this interaction. Coaches defended that, ten points as a difference between two teams, is an important reference for the evaluation of game’s balance. This perception is a link between the maximum modal value of ball possession and the number of ball possessions that implies the notion of even/uneven in the game dynamics. According to coaches’ thought, game moves to a transition phase when points difference is higher than the maximum value of three ball possessions – ten points.

Practical knowledge of basketball coaches seems to give a new sight about the basketball game criticality. It helps to define order parameters that were called equilibrium game stages. Points difference and game tempo were seen as a control parameters (McGarry et al., 2002). When control parameters move the game among their equilibrium stages we are on front of a phase transition - a critical game moment. In these cases, game jumps to another organized state. In the interest of game analysis it would be desirable to know what’s happened in the technical and tactical domains during these phase transitions.

References