



Motricidade

ISSN: 1646-107X

motricidade.hmf@gmail.com

Desafio Singular - Unipessoal, Lda
Portugal

Ferreira, A.P.; Volossovitch, A.; Gomes, F.; Infante, J.
Basketball critical game moments: A special focus on perturbation factors
Motricidade, vol. 5, núm. 3, 2009, p. 44
Desafio Singular - Unipessoal, Lda
Vila Real, Portugal

Available in: <http://www.redalyc.org/articulo.oa?id=273020560015>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org

redalyc.org

Scientific Information System
Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal
Non-profit academic project, developed under the open access initiative

Basketball critical game moments: A special focus on perturbation factors

A.P. Ferreira, A. Volossovitch, F. Gomes, J. Infante

Faculty of Human Kinetics, Technical University of Lisbon

Perturbation factors are defined as the game events that can modify the competition's dynamic (Hughes, Dawkins, David & Mills, 1998). They can introduce critical moments on the game and have an instantaneous effect on the balance relationship between teams. This paper aims to study the critical moments of basketball games focusing on perturbation factors defined in the context of this sport game.

Perturbation factors from 80 Portuguese Basketball League games were observed. All of them were reconstructed in their evolution of Points Difference (PD) per Ball Possession (BP). Three different groups of game events were considered as the perturbation factors: Player's Limitations, Intentional Game Interruptions and the Disciplinary Interventions. A critical game moment was registered when a determined PD was associated with a number of BP before and after the events' occurrence in the BP match line. The methodological criteria to identify the critical game moment was supported by a previously study centred on coaches' practical game knowledge (Ferreira, Sampaio, Ibañez & Volossovitch, 2008). Critical moments were compared between three dependent variables: the game quarter of their occurrence (the first three quarters vs. last quarter), the game balance (even vs. uneven games) and the game success (winner teams vs. loser teams).

In the first three quarters, each critical moment was defined by the relationship between 7.04 (+/-1.45) BP and 6.74 (+/-0.96) PD. These values configure a statistical difference ($p \leq 0.01$) for the game quarter occurrence variable ($t=7.43$ df=265 for the BP and $t=13.46$ df=265 for the PD). No differences were found for the game balance variable. For team success comparison was obtained statistical differences for the first three quarters ($t=3.20$ df=144; $p \leq 0.01$) and for the 4th one ($t=2.84$ df=144; $p \leq 0.01$).

Despite the methodological differences between the identification process of the critical moments on two main game parts, there are reasons to understand these episodes with different lengths (number of BP) and different consequences (PD implication) when these two temporal blocks are compared. The winner teams have the benefit to provoke more unbalance game episodes. Further studies have to clarify the characteristics of each perturbation factor and the qualitative profile of the critical moment provoked.

Key words: basketball, perturbation, critical moments

Hughes, M., Dawkins, N., David, R., & Mills, J. (1998). The perturbation effect and goal opportunities in soccer. *Journal of Sport Sciences*, 16, 20.

Ferreira, A., Sampaio, J., Ibañez, S., & Volossovitch, A. (2008). Interactional effects of balance and success on the critical moments from basketball games. In J. Cabri, F. Alves, D. Araújo, J. Barreiros, J. Diniz & A. Veloso (Eds.), *Proceedings of the 13rd Annual Congress of European College of Sport Sciences* (p. 562). Lisbon: SporTools. Portugal, 9th-12th July 2008.