

Difficulty score in group rhythmic gymnastics (Portimão 2007/2008 World Cup series)

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Abstract

Background. A knowledge of the composition of competition elite gymnasts routines gives us a perspective of the evolution of gymnastics.

Aim. The aim of this study is to try to understand if there is a common profile in the choice of difficulty elements in different body groups in gymnasts from different countries and/or from different “training schools”.

Methods. In this study, there were observed 70 different routines, from 23 different countries in 4 different continents, which have competed at the 2007 and 2008 Portimão World Cup Series (PWC). All the groups performed two different routines, one with 5 ropes and the other with 3 hoops and 4 clubs. To analyse the difficulty elements we used competitions forms provided in advance to the competition organisation. We used the competition forms instead of films because in this way the analysis would not be affected by mistakes made by the group during the competition. The official classification used in the FIG (Gymnastics International Federation) Code of Points (FIG, 2005-2008) was used to organise different elements. It classifies the body difficulties in 5 categories: Jumps/Leaps, Balances, Pivots, Flexibility/Waves and Exchanges.

Results. The analysis of the 2007 and 2008 results showed that in the Jumps and for both routines, all groups preferred performing difficulties with different kinds of *jeté* with turn. In the balances category, the balance with horizontal trunk and the balances with different positions of the free leg were the most performed in both competitions. The most frequently used pivots were the pivots with the leg high (in front or side) for the two different types of routines in 2007. However, in PWC 2008, the *fouettés* were the most frequently used pivot in both routines. The preferred flexibility/wave elements used in the sample observed were the splits with the horizontal positions.

The results show that the majority of the exchange elements were performed without body difficulty elements. However, when they include them, the groups chose jumps in both types of routine and in both competitions.

Conclusions. In general a profile for each kind of apparatus could be designed and to compose the difficulty elements, the groups observed, demonstrated a preference for jumps and flexibility/waves in both routines and in both years (2007 and 2008).

Keywords: rhythmic gymnastics groups, difficulty score, evaluation, performance.