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New judo rules impact in the fight dynamics – 2013 and 2014 world championships data preliminary exploratory analysis

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Abstract

Background and Study Aim. Following previous changes, new rules are applied to Judo competition since January 1, 2014. Some of the new rules may impact Judo fight dynamics. Among the new set of rules, the female fight time decreases from 5 to 4 minutes and new penalties (Shidos) are introduced. This study is a preliminary exploratory analysis of that impact based on the 2013 and 2014 World Championships fights. The 2015 World Championships will also be included in future work.

Material and Methods. The 2013 World Judo Senior Championships involved 673 senior judokas (415 male, 258 female) from 123 nations in 715 matches. The 2014 edition involved 637 athletes (386 male, 251 female), 110 countries, 679 matches. Each match was videotaped. Two separate databases resulted from the analysis of the of fights:

Fight structure database with time spent standing (with and without grips), in the floor and with the fight paused, classified by minute of the fight.

Fight action database, each attack or pause (due to shido) being characterized by its effect (score, shido or no result), cause for shido, gripping (kumikata) positions, ne waza and ne waza score, all classified by minute.

Results. The preliminary exploratory analysis presented (based solely on the Fight structure database) suggests that there is a total time (includes pauses) decrease in the female fights (all weight categories) from 273 to 233 seconds. There is also a decrease in the real time (no pauses included) from 199 to 179 seconds (again considering all categories). There are marked differences in the that pattern when the analysis is further refined, with the lighter (-48 kg) category showing no difference in total fight times before and after the rule changes.

Conclusion. In what concerns male fights, having no time rule changes, fight times were globally similar in both years. However, when weight category is considered, there are some variations, possibly explained by an evolution of the referees' interpretation of rules introduced in 2013 (with a larger or smaller influence on fight times depending on the diverse fight dynamics in the different weight categories).

Keywords: judo • new match rules • world championships • impact assessment

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