

# Study of distances and rotations between judo players during approaches and grips in judo combats

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## Reports

In a judo combat, both judo players move on the mat to create opportunities to attack. The attacker approaches in order to grip the adversary's judogi. The grip can be made with one or both hands. The attacker can get closer for the attacks and is in contact during the throw.

"The *kumi-kata* integrates the phases of approaches and of hang (grapping) and of course the installation of the hands, the guard (orientation arm/body/feet) and the use which is made by it (to destabilize, move, attack)" (Giuseppi, 1997).

A judo combat is composed of various phases. A phase starts when the referee announces the beginning of the combat; this phase is finished when the referee stops the combat (temporarily or definitively) (Castarlenas and Planas, 1997).

## Goal

- 1) To identify these phases of approaches and of gripping, according to the levels of practice.
- 2) To establish predictable rotations of the combatants.

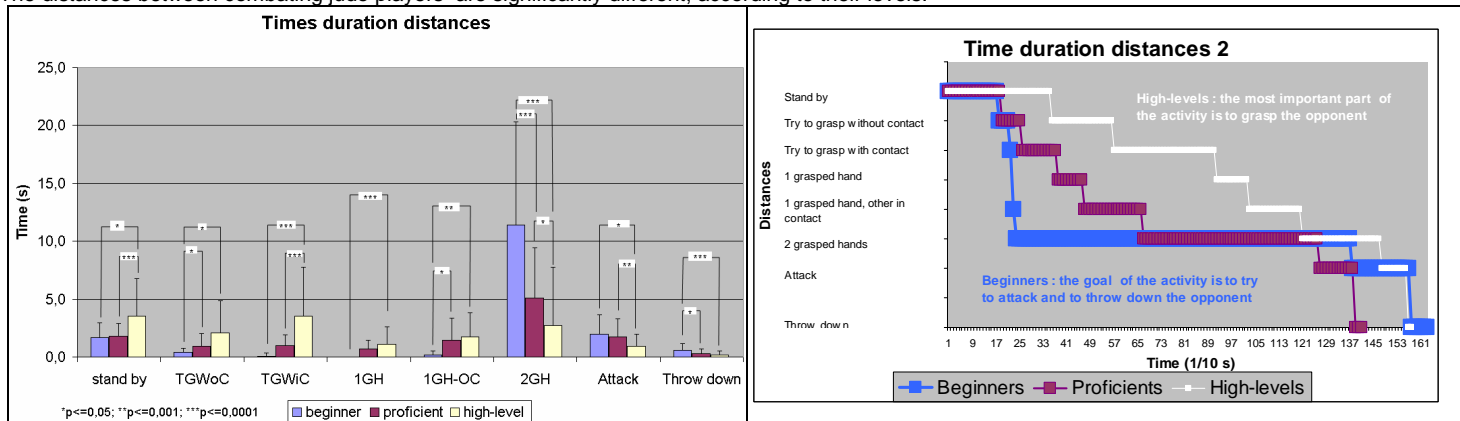
## Methodology: distances and rotations collected during the phases of a combat

Distances between judo players 8 criteria			Rotations counted starting from sector changes 8 sectors	
Values	Behavior	graphic legends		
1	Stand-by	stand by		
0,9	Try to grip without contact	TGwoC		
0,8	Try to grip with contact	TGWIC		
0,7	1 gripping hand	1GH		
0,6	1 gripping hand, the other in contact	1GH-OC		
0,5	2 gripping hands	2GH		
0,4	Attack	Attack		
0,2	Throw down	Throw down		

## Collection of data and results

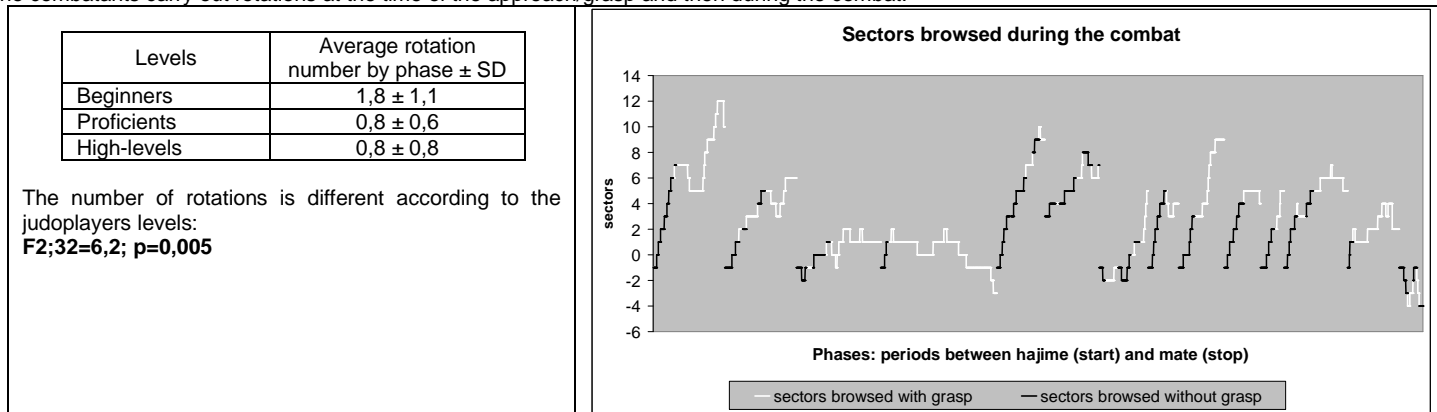
<p><b>Subjects observed:</b>                  10 high-level (international level) (5F; 5M).                  16 proficient (9F; 7M) in official dan contest.                  9 beginner students (4F; 5M).                  Winners of contests were observed.</p> <p><b>169 phases were analyzed</b></p>	<p><b>Average time duration phases</b></p>	<p>No significant difference between the average duration of the phases in the 3 groups: <b>(F2; 166=2,4; p=0,094)</b>.</p> <p>The duration and the number of phases for the high-level group corresponds to the data from literature</p>
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The distances between combating judo players are significantly different, according to their levels:



**Conclusion:** time spent with both hands gripping to attack and to throw down is: beginners 86%; proficient 53%; high-levels 24%.

The combatants carry out rotations at the time of the approach/grasp and then during the combat.



**Conclusion:** 4 "sectors of a step in a phase" represent a half-turn. In this combat (World Championships in Rio 2007), the proportion rotations without grip vs. rotations with grips is around 45% vs. 55%.