



An analysis of Kumi Kata at the Junior and Senior British Championships 2013.

Abstract

Developing an understanding of kumi kata across age, gender and weight categories in British judo can better equip coaches to set training programmes, develop new tactics and provide a more detailed understanding of kumi kata demands. Kumi kata was extracted from the pre-recorded footage and then coded using SportsCode. The results indicated first contact placement was split between lapel and sleeve. The majority of main grips were sleeve lapel, however senior men was sleeve high collar. Overall right foot and right hand forward stance was most frequent, however senior women left hand and foot forward was predominantly used. Junior judoka were seen to have a clear preference of gripping right handed and seniors left.

Introduction

Randori and competition are a key aspect of modern judo and in order to become proficient in these one must understand kumi kata (gripping).

Kumi kata is essential in order to execute any technique in judo, however there are few studies in this area. Moreover, rules are constantly changing in an attempt to bring back a more upright style of judo, thus kumi kata sequences and tactics are adapting. The aim of this study was to to develop an understanding and compare kumi kata across age, gender and weight from the junior and senior British championships held in January 2013.

Method

The junior and senior British Championships 2013 comprised of 292 competitors (n=292); with 176 juniors (n=176 - 63 females and 113 males) and 116 senior (n=116 - 48 females and 68 males). Pre-recorded footage was gathered from dartfish TV and coded using SportsCode pro (Australia). Two fights were randomly selected from each weight category to give a final sample of 58 contests allowing analysis of 444 lead grip sequences and 324 main grip sequences. A code window was developed using SportsCode (Australia) on an imac desktop computer (Apple, US).

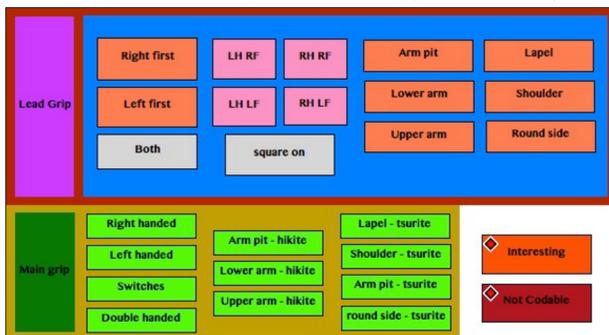


Figure 1: Screen shot of the code window created in SportsCode that was developed to gain a further understanding of British junior and senior kumi kata.

Lead grip was the phase preceding the main grip, which includes non-contact time, first contact and the tactics enabling main grip to be established. Main grip is the grip the judoka settled for after the kumi kata phase, whether it is the grip they wanted or not.

Results

The results indicated first contact placement was split between lapel (49%) and lower sleeve (46%). However, senior women differed from this with a higher lower arm placement (58%) than lapel (39%).

The majority of main grips were sleeve lapel; tsurite hand placement was most frequently (62%) on the lapel and the hikite hand on the lower arm (91%). However, senior men's tsurite hand was more often on the shoulder (53%) than the lapel (36%).

Overall in main grip, judoka gripped right handed the majority of the time (56%) rather than left (36%) with very few double handed grips taken (8%). Moreover junior judoka gripped right handed (72%) as opposed to left (21%); whereas senior players differed as left handed was more common (60%) than right handed (37%).

Overall the right hand and right foot forward (RH/RF) stance was most frequent (28%); however this stance was the least often adopted by senior women (11%) who predominantly used a left hand and left foot forward stance (LH/LF).

Different stances in lead grip across age and gender groups

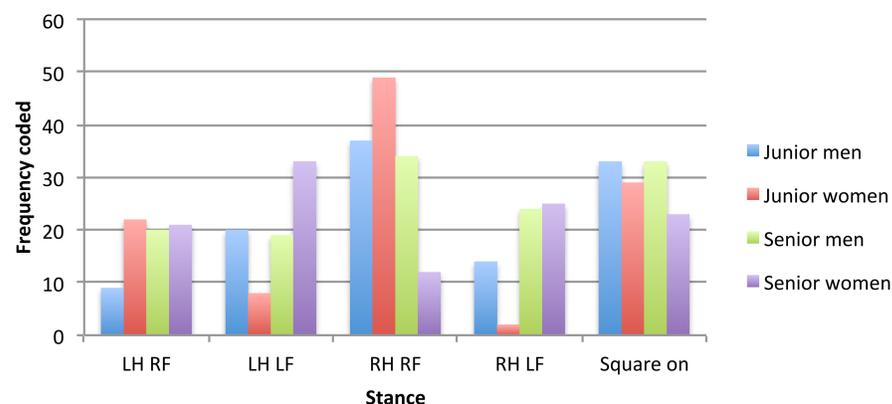


Figure 2: Shows the different stances adopted in lead grip across age and gender groups.

Discussion and Conclusion

The first contact in lead grip was split between lapel and lower sleeve, 49% and 46% respectively. Pierantozzi et al. (2009) found lapel was favoured by both men and women, however they differed for their second preference. Women preferred to grip the leg area whereas males preferred the wrist area. Nevertheless, since the 2010 rule changes, gripping the leg area in first contact would result in hansokumake. These findings suggest that due to the new rules, sleeve and lapel are the two most common areas gripped by all judoka in first contact.

In main grip the majority of athletes gripped the lower sleeve and lapel; thus coinciding with the findings of Pierantozzi et al. (2009) who stated the sleeve lapel grip was the most common grip taken. Weers (2010) referred to an athletes dominant hand (tsurite hand) as the power hand; JudoInfo (2010) suggested that 71% of successful forward throws were with a power hand placement near the clavicle, thus suggesting that the sleeve lapel grip that was identified as the most common grip in British judo is a successful grip. In contrast, senior men gripped the shoulder (53%) more than the lapel (36%) thus making the sleeve high collar their most frequent grip.

Right hand and right foot (RH/RF) forward was the most common stance overall out of the five stances coded; in junior judo this suggests that players that grip right handed are more likely to adopt a right foot and right hand forward stance (RF/RH). However, stance for seniors was very varied along with a lesser difference in what hand grip they adopted; thus indicating senior kumi kata is more advanced and less predictable, most likely incorporating several strategies and tactics than junior judo.

Weers (2010) study on senior athletes gripping strategies at the 1996 olympic games, proposed a question of "why are there so many left handed players?" The proportion of left handers in a normal population was close to that found in junior judo (21%). However, there is a high percentage of left handed grips found in senior judo (60%); this may be due to players finding it advantageous to switch between left and right.

Selected References

Pierantozzi, E.; Nerozzi, E.; Piras, A. and Lubisco, A. 2009. Analysis of the fighting phase before the first grip in the finals of the judo world championship 2007. Annals of the 1st European Judo Federation Scientific Congress. Lisbon, POR; 10th April.

Weers, G. 2010. Gripping strategies. [Online] Available at: <<http://judoinfo.com/new/alphabetical-list/categorywisey-index/93-george-weers/389-gripping-strategies>> [Accessed 21st April 2013].