

# Judo and kata teaching: Can personal expression be addressed before formal expression?

Michel Calmet<sup>1</sup> , Emanuela Pierantozzi<sup>2</sup> , Carl De Créé<sup>3</sup> , Jacques Crémieux<sup>4</sup>

<sup>1</sup>Université d'Aix-Marseille, Faculté des Sciences, Master Qualité, 52 Av. Escadrille Normandie-Niemen, 13013 Marseille (France), e-mail : [michel.calmet@univ-amu.fr](mailto:michel.calmet@univ-amu.fr)

<sup>2</sup>Università degli studi di Genova, Via Balbi, 5, Genova (Italia), e-mail : [emanuela.pierantozzi@unige.it](mailto:emanuela.pierantozzi@unige.it)

<sup>3</sup>Division of South and East Asia: Japan Studies, Department of Languages and Cultures, Ghent University, Blandijnberg 2, B-9000 Ghent, Belgium, email : [prof.cdecree@earthlink.net](mailto:prof.cdecree@earthlink.net)

<sup>4</sup>Président of ARRESCAM, UFR STAPS Toulon, Bâtiment K, Avenue de l'Université, 83130 La Garde, (France), [creploem@wanadoo.fr](mailto:creploem@wanadoo.fr),

Corresponding author Michel Calmet : +33 688 475 482; [michel.calmet@gmail.com](mailto:michel.calmet@gmail.com)

# Abstract

**Background:** Randori (free practice combat exercise) and kata (formal codified practice exercise) are complementary in learning judo. Traditionally taught by imitation (relationship between sensei and senpai/kohai; SHU phase of the SHU-HA-RI method) and after randori, kata are often perceived as an obstacle for promotion to a higher rank. Active teaching methods may help us in changing this perception.

**Aim:** A personal expression or personal free practice of concepts of kata may precede formal expression or formal codified practice in learning kata.

**Methods:** From 2011 to 2018, the personal expression based on the concepts of gonosen-no-kata (kata of counterattacks) was analyzed in 38 bachelor-level students at the University of Montpellier (France). Subjects mastered the nage-no-kata (mandatory for 1st dan black belt) but were not knowledgeable in the gonosen-no-kata (mandatory for 4th dan black belt). During 4 hours of class, they had to perform freely all or part of 4 series: 3 different counterattacks after 3 different attacks, 1 identical counterattack after 3 different attacks, 3 different counterattacks after 1 identical attack, and 3 free counterattacks after 3 free attacks.

**Results:** Subjects performed 95 series containing 282 attacks/ counterattacks: 231 attacks and 47 counterattacks corresponded to those codified in the gonosen-no-kata, reflecting the students' insights. Techniques banned in competition by the International Judo Federation in 2011 were not used by the students. No significant differences were found between women and men in choices of defense used for dodging and sen-no-sen, and in techniques used for counter attacking. Men and women did, however, significantly differ in blocking attacks.

## **Conclusions:**

- Active teaching methods for learning gonosen-no-kata are valuable and might be expanded;
- Students are creative in choosing techniques;
- Personal expression may precede formal expression in learning kata.

There may be unexpected challenges for French judo technical staff in developing methods to include gonosen-no-kata in warm-up and techniques.

**Key words:** active teaching methods, chlorophyll pedagogy, combat sport, kata, Kodokan, martial arts, motor learning, randori, self-defense, shu-ha-ri.

# Background

Judo experiences difficulties in teaching one of its main components, i.e., the kata part:

- "Kata sometimes has become the drudgery or even the unavoidable obstacle to pass the black belt test and higher black belt ranks" [FFJ, 2010a].
- "A boring obligation, a kind of superfluous formality" [Jazarin, 1974].
- "Kata conjures up thoughts of anxiety, alarm, dismay and boredom synonymous with jury duty, watching paint dry or for those of us that served in the military, the dreaded KP duty ... people perceive kata is performance for demonstrations or 'gotta do it for my promotion' thing" [Osugi, 2005].

The image of codified kata among judoka oscillates between dissociation and denigration. Judoka (often) perceive these choreographed forms as an imposed and misunderstood ritual, as they do not understand kata as part of the history of judo, while they all practice prearranged and choreographed forms of techniques during uchi-komi. It should be noted that judo was codified by a university professor and was first taught to adults with a constructed personality. One of the problems today is that judo is mostly taught in the world to children and teenagers who are building their own personalities. It is therefore important that this teaching be meaningful for these children.

Active teaching methods or the systemic use of the SHU-HA-RI phases can help us change a negative perception of kata and give a positive meaning to the learning of judo and the concept of kata. The innovation, i.e., the 'possibility', for the student to create his own associations of attack/counterattack techniques brings an "added value" to the comprehension of gonosen-no-kata as a codified kata that respects the tradition.

## **Aim of the study:**

A personal expression or personal free practice of concepts of kata may precede formal expression or formal codified practice in learning kata.

# Methods

From 2011 to 2018, results from 38 students of the Faculty of Sports Sciences of the University of Montpellier collected from personal performance in mastering the concepts of the gonosen-no-kata (predesigned formal exercise of attacks and counterattacks applicable in judo combat) were available for analysis:

- Subjects were in their 3rd year of study in their STAPS bachelor program; all were enrolled in the judo sports option. Subjects were divided into two groups consisting of 7 Women (W) and 31 Men (M), i.e., a 22.6% W to M ratio, in contrast with a 30% W to M STAPS ratio in 2017.
- Mean age was  $21.7 \pm 1.4$  yrs (mean  $\pm$  SD).
- The subjects' judo rank ranged from brown belt 1st kyu to black belt 2nd dan. All were familiar with competitive judo, judo training methods, and at least one kata, i.e., nage-no-kata, because mastering this specific kata is mandatory for obtaining first degree black belt.
- Subjects had engaged in regular judo practice for >5 years at a minimum of 4 hours per week.

# Protocol to collect data

We used the structure of gonosen-no-kata as a basis for data collection. All participating judoka-students were instructed to present, that is to say, prepare, compose and demonstrate as a pair a kata of counter-throws in a noncompetitive recreational setting [Jones & Hanon, 2012].

Their technical presentation needed to include all or part of 4 series of 3 attacks followed by 3 counterattacks: 3 different counterattacks after 3 different attacks, 1 identical counterattack after 3 different attacks, 3 different counterattacks after 1 identical attack, and 3 free counterattacks after 3 free attacks.

These series of 3 throws were chosen in reference to the nage-no-kata already familiar to the students.

Instruction, preparation and practice time spent, consisted of 2 classes (2 x 2h), plus personal work in between classes. Recorded in video sequences, the subjects' personal performances were compared with an evaluation grid elaborated from the gonosen-no-kata

N° of the technique	Codified attack	Codified counterattack	Similar technique to attack
1	<i>o-soto-gari</i>	<i>o-soto-gari</i>	<i>o-soto</i>
2	<i>hiza-guruma</i>	<i>hiza-guruma</i>	<i>sasae-tsuri-komi-ashi</i>
3	<i>o-uchi-gari</i>	<i>o-uchi-gaeshi</i>	<i>o-uchi</i>
4	<i>de-ashi-barai</i>	<i>tsubame-gaeshi</i>	<i>okuri-ashi-barai</i>
5	<i>ko-soto-gake</i>	<i>tai-otoshi</i>	<i>ko-soto</i>
6	<i>ko-uchi-gari</i>	<i>sasae-tsuri-komi-ashi</i>	<i>ko-uchi</i>
7	<i>kubi-nage</i>	<i>ushiro-goshi</i>	<i>tsuri-goshi</i>
8	<i>koshi-guruma</i>	<i>uki-goshi</i>	<i>tsuri-goshi</i>
9	<i>hane-goshi</i>	<i>sasae-tsuri-komi-ashi</i>	<i>hane-goshi</i>
10	<i>harai-goshi</i>	<i>utsuri-goshi</i>	<i>harai-goshi</i>
11	<i>uchi-mata</i>	<i>sukui-nage</i> or <i>te-guruma</i>	<i>uchi-mata</i>
12	<i>ippon-seoi-nage</i>	<i>sumi-gaeshi</i>	<i>seoi-nage</i>

Data were input and run in MS-Excel 2019 and statistically processed with XLSTAT 2019.4.1 [Addinsoft, 2020]. The alpha was set a priori at 0.05

# Results

The data set consisted of 95 series, 286 attacks and 286 counterattacks. Twenty-one series (22.1%) included approach and gripping phases (kumi-kata). The subjects completed an average of  $2.50 \pm 1.47$  sets; the distribution of set numbers did not follow a normal distribution (Jarque-Bera test  $p=0.002$ ). The numbers of series were homogeneous (Pettitt test  $p=0.406$ ). Among these 286 attacks, 4 (1.4%) were punches to the face and considered self-defense and therefore will not be included as part of counterattack throws in our study.

- Statistical analysis showed no significant difference in defense categories Women vs. Men in dodging and sen-no-sen (respectively in Kruskal-Wallis test  $p=0.239$  and  $p=0.430$ ) and showed significant difference in blocking, Women and Men performed respectively on average  $1.57 \pm 1.27$  vs.  $4.23 \pm 3.25$  (Kruskal-Wallis test:  $p=0.009$ ).
- Within a pedagogical classification of techniques [Calmet, Gouriot, 1987; French Judo Federation, 1989], statistical analysis (Kruskal-Wallis test) showed no significant difference in the types of techniques used for counterattack between Women and Men:
  - on two supports without lifting (ex.: tai-otoshi)  $p=0.957$
  - on one support without lifting (ex.: hiza-guruma)  $p=0.199$
  - on two supports while lifting (ex.: seoi-nage)  $p=0.289$
  - on one support while lifting (ex.: harai-goshi)  $p=0.106$

# Discussion

The subjects showed inspiration in the richness of their chosen attacks and counterattacks similar to actual contest situations with 22,1% of their initiatives including phases of initiation, entering (hairi-kata) and gripping (kumi-kata) before attacking. The low percentage of students (18.4%) who applied 12 or more counterattacks and the low percentage of students (16.7%) who applied counterattacks that matched counter-techniques already included in the gonosen-no-kata (Table 4), suggest that students have a certain proficiency in judo even though they have no mastership or knowledge of gonosen-no-kata.

Subjects clearly incorporated current judo contest rules into their creativity. After 2012, te-guruma and other throws, either direct or as counter throw, that required gripping below the belt became prohibited in judo contests, as specified since 2011 in the International Judo Federation's Refereeing Rules. The subjects' technical achievements were good and revealed great potential:

There are two possible axes to open up perspectives [De Créé, 2015a]:

- "As gonosen-no-kata is not accepted as an official kata by the Kodokan...there is no universal or standardized method for performing gonosen-no-kata."
- "The purpose of kata, similar to randori, is to improve one's judo ... not to superficially copy mechanical patterns."

This non-standardization and continuous improvement will allow us to understand why and how to build these sets of attacks linked to counterattacks by listing and organizing the various possibilities: (i) sen-no-sen or go-no-sen; (ii) movements with approach-accroach phases or traditional face-to-face kata; (iii) technique entries; (iv) technique classification.

- Which mode of counterattack to build one's personal expression?
- What type of contextualization?
- What type of entry or placement to attack?
- What classification of techniques should be used?

# 'Keys' to understand the tasks:

- Go-no-sen mode, combat contextualization, associated entries, 3 free attacks with circle shifts, 3 free counterattacks;
- Go-no-sen mode, contextualization of the combat with opposite grip for the attacker, entries with gallop time, 3 attacks in ashi-waza, 3 counterattacks in ura-nage;
- Sen-no-sen mode, kata contextualization, sliding entries, 3 attacks in ashi-waza, 3 counterattacks in sen-no-sen;
- Go-no-sen mode, combat contextualization, sutemi entries, 3 attacks with the same technique, 3 counterattacks with different standing transitions (osaekomi-waza (holds), kansetsu-waza (arm bars), shime-waza (strangulations));
- Sen-no-sen mode, contextualization of combats, ground-work, 3 free attacks, 3 free counterattacks, attacks and counterattacks can be linked [Calmet, 1996].

# Conclusions

Evaluation of the subjects' achievements is "active and reactive", it seems sensible to us to continue utilizing exercises that build on formal expressions because of the variety in avenues that are offered. To do so, a teacher or evaluator needs to carefully observe the work of the pair of interacting judoka in order to evaluate whether the attacks and counterattacks are logical, smooth and cohesive. Carrying out these observations and subsequent analyses make this a considerable time-consuming effort.

We have pointed out that the contents concerning the choice of techniques to be performed in kata are rarely, poorly or not precisely explained. This paper proposes a number of pedagogical variables: the mode of counterattack, the type of contextualization, the type of entry or placement to attack, and the classification of techniques to be used. With these variables judo teachers can build pedagogical situations and explain how and why judoka have to train and what they must do.

The results show that there was no significant difference in the number and type of defenses between Women and Men judoka in dodging and sen-so-sen, but a significant difference in blocking. Furthermore, there were no significant gender differences in the types of techniques chosen as counterattacks. Students used their knowledge-in-action (of judo) in their personal expression. Active teaching methods, by shaping the elements of the demonstration, appeared to stimulate motivation and gave a positive meaning to the subjects' efforts. The main idea was to help and widen the understanding of the concept of kata through formulating personal technical expressions in order to facilitate the learning of kata. The subjects' autonomy to

# References

1. De Créé C. (2015a), Kodokan Judo's three orphaned forms of counter techniques – Part 1: The Gonosen-no-kata —Forms of post-attack initiative counter throws, "Archives of Budo" vol. 11, pp. 93-123.
2. De Créé C. (2015b), Kodokan Judo's three orphaned forms of counter techniques – Part 2: The nage-waza ura-no-kata —"Forms of reversing throwing techniques", "Archives of Budo" vol. 11, pp. 125-154.
3. De Créé C. (2022), An update to earlier research findings about the Gonosen-no-kata —"Forms of post-attack initiative counter throws", "Revista de Artes Marciales Asiaticas" (in press).
4. Jones L., Hanon MJ. (2012), El camino de la kata en el judo Kodokan. "Revista de Artes Marciales Asiaticas"; DOI: 10.18002/rama.v6i1.83
5. Kiner A., Guénet F. (1999), La nécropole des Princes, "Sciences et avenir" vol. 626, pp. 53-57.
6. Addinsoft. (2020), XLSTAT statistical and data analysis solution. Paris, France. <https://www.xlstat.com> (access Jan. 2020).
7. British Judo Association, <https://www.britishjudo.org.uk/my-judo/grading/grading-resources/> (access May. 2020).
8. Calmet M. Matet P, <https://drive.google.com/file/d/1avBvPcqrhsH2TvXiM9TbnpRB8PXdBwyz/view?usp=sharing> (access Jan. 2020).
9. Duport P, [https://www.francetvinfo.fr/replay-radio/c-est-mon-boulot/la-creativite-qualite-la-plus-recherchee-chez-les-candidats\\_3765685.html](https://www.francetvinfo.fr/replay-radio/c-est-mon-boulot/la-creativite-qualite-la-plus-recherchee-chez-les-candidats_3765685.html) (access Oct. 2020).
10. FFJ, <https://www.ffjudo.com/video-kodomo-no-kata> (access Jun. 2020).
11. Hadji Izem M, <https://blog.octo.com/faciliter-ladoption-de-lagile-grace-au-shu-ha-ri/> (access Jan. 2020).
12. Kodokan Judo Institute, <http://kodokanjudoinstitut.org/en/waza/forms/textbook/> (access Jan. 2020).
13. Kodokan, <http://kodokanjudoinstitut.org/en/waza/forms/textbook/> (access Jan. 2020)
14. Meirieu P, <https://www.meirieu.com/COURS/PENSEREDUCFOR.pdf>, (access Jan. 2020).
15. Osugi K, <https://judoinfo.com/judokata/> (access Jan. 2020).
16. Callan M., Bradic S. (2018), Kata training for judo: value and application of kata training to judo training [in:] M. Callan [ed], The Science of Judo, Abingdon, Oxon, pp. 19-28.
17. Calmet M., Gouriot M. (1987), Didactique du judo en milieu scolaire, CCDP-Oise, Beauvais.
18. Calmet M. (1996), Travail au sol en judo et structures algorithmiques [in:] Y. Kerlirzin., G. Fouquet [ed], Arts martiaux sports de combat, Cahiers de l'INSEP vol. 12-13, Paris, pp.169-172.
19. Calmet M. (2007), Du mode "banlieue" au mode "renaissance" : un exemple de régulation pédagogique en kendo scolaire [in:] G. Carlier., J.P, Renard [ed] Plaisir, compétence et réflexivité La formation continue en éducation physique, Presses universitaires de Louvain, pp. 16-21
20. FFJ. (1989), La progression française de judo, FFJ, Paris.
21. FFJDA., Jazarin JL. (2007), Shin Éthique et tradition dans l'enseignement du judo, FFJDA, Paris.
22. FFJ. (2007), Le kata pour qui, pourquoi ? Ou apprendre et progresser avec le kata, Initiatives, FFJ, Paris.
23. FFJ. (2007a), Gonosen, formes des contreprises, FFJ, Paris.
24. FFJ. (2009), Le katame no kata, le pratiquer, le comprendre, se perfectionner en judo, FFJ, Paris.
25. FFJ. (2010), Pédagogie : Bulletin d'information de la commission nationale des ceintures noires 5, FFJ, Paris.
26. FFJ. (2010a). Les katas en question : Bulletin d'information de la commission nationale des ceintures noires 5, FFJ, Paris.
27. Hamot C. (1985), Kime-no-kata, Sedirep, Paris.
28. Hernandez JF. (2008), Jigoro Kano, Judo (Jujutsu), Méthode et pédagogie, Fabert.
29. Inogai T., Habersetzer R. (2007), Judo Kata : Les formes classiques du Kodokan, Amphora.
30. Jazarin J.L., (1974), Le judo école de vie, Le Pavillon, Paris.
31. Kano J. (1932), L'éducation par le judo [in:] J.L. Jazarin [ed], Le judo école de vie, Le Pavillon, Paris, pp. 189-207.
32. Le Bihan M. (1981), Ju-no-kata, Sedirep, Paris.
33. Meirieu P. (2013), Pédagogie: Des lieux communs aux concepts clés. ESF éditeur - Café pédagogique
34. Otaki T., Draeger DF. (1990), Judo Formal Techniques: A Complete Guide to Kodokan Randori No Kata, Tuttle Publishing.
35. Thibaut C. (2011), Les pionniers du judo, Budo éditions, Paris.
36. Goodger BC. (1981), The development of judo in Britain: a sociological study, Faculty of Economics (Sociology) Department of Sociology of Education, Institute of Education, University of London.
37. Filaine Franck (2020), 5 dan, international kata judge, direct interview, Prades le Lez, Jan.
38. Parent André (2020), 6 dan, international kata judge, direct interview, Prades le Lez, Jan.