

# An Opinion Survey of Judoists in the USA

\*Hidemasa Tokuyasu \*Noboru Hashimoto \*\*Eiko S Shepherd \*\*\*Ryuji Okada \*\*\*\*Takeshi Nakajima

(\*Tokyo Ariake University of Medical and Health Sciences\*\*United States Judo Federation \*\*\* Kinki University\*\*\*\*Kokushikan University)

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## I .PURPOSE

Judo is now one of the most popular sports in the world and loved and played by the people of the 201 International Judo Federation member countries, but it is inferred that Judo today has been divided into two separate things, "Modern Judo" as a competitive sport and "Traditional Judo" as a traditional spiritual culture since 1964 Tokyo Olympics. Therefore we have attempted attitude surveys on Judo since 2004 in order to know how the Judo deemed ideal by the founder of Judo Master Jigoro Kano is spread in the world, from which we have continued survey and research to obtain further development and universality of Judo in the twenty-first century. And this time, we have made it our purpose to administer an attitude survey on Judo to males and females with experience in Judo in the United States and clarify what kind of image they have of Judo.

#### II.METHODS

#### 1) Survey Subjects

People with experience in Judo in the United States, 52 males, 41 females, 93 in total, and the average and standard deviation of their ages/ histories of Judo/grades.

(Table—1) Data are mean  $\pm S.D$ .

	Number	Age(y)	Judo history(y)	Dan
Male judo players	52	$36.94 \pm 16.07$	$15.23 \pm 15.31$	$1.462 \pm 2.043$
Female judo players	41	$29.05 \pm 15.34$	$8.61 \pm 12.13$	$0.878 \pm 1.676$
All judo players	93	$33.46 \pm 16.15$	$12.31 \pm 14.31$	$1.204 \pm 1.903$

#### 2) Survey Materials

We used "the survey questionnaire on the image of Judo" which we developed on our own. We had the subjects answer each question item on a 5-point scale following the Fest Sheet.

#### 3) Survey Methods

We requested 93 Americans who experienced Judo in 2011 (52 males, 41 females) to cooperate with a questionnaire survey, which was administered and collected after a person in charge explained its details to them and they gave their consent.

#### 4) Analysis Methods

We put all the materials we could obtain in scores. We used factor analysis in order to infer the characteristics of the attitude survey of Judo players from a statistical standpoint. We performed incomplete principal component analysis after calculating the descriptive statistics followed by the correlation matrix, and sought a multi-factor solution to the main component of eigenvalues of 1.0 or higher by applying orthogonal rotations by the normal varimax criterion.

## III.RESULTS

As a result of the factor analysis of 93 American Judo players, 6 factors were extracted as shown in the table 2 "factor loading matrix after rotations," whose cumulative contribution was 63.736 % to the entire distribution from the first to sixth factors.

We defined a factor loading of 0.5 or higher as significant here; 6 factors were extracted, where we regarded the sixth factor as uninterpretable since only one item was extracted for it. A 0.1%-standard significant difference was observed in each of the second factor "traditional factor" and the third factor "physical factor" extracted.

### Presenter; Hidemasa Tokuyasu

(c/- Tokyo Ariake University of Medical and Health Sciences ) 3-4-1 Ariake,Koto-ku,Tokyo 135-0063, Japan Tel:+81-(0)3-6703-7022 Fax:+81-(0)3-6703-7000 E-mail:tokuyasu@tau.ac.jp

(Table—2) Factor loading matrix after rotations (N=93)										
Item	F1	F2	F3	F4	F5	F6	Communality			
Q14	0.798						0.665			
Q15	0.779						0.664			
Q19	0.738						0.672			
Q16	0.676						0.582			
Q18	0.634						0.574			
Q20	0.563						0.431			
Q3	0.545						0.642			
Q7	_	0.802					0.689			
Q12	_	0.787					0.756			
Q6		0.709					0.578			
Q5	_		0.842				0.743			
Q11			0.766				0.652			
Q10				0.786			0.715			
Q4				0.684			0.706			
Q9				0.565			0.595			
Q1				-0.502			0.358			
Q13	_				0.776		0.687			
Q17	-				0.659		0.707			
Q8					0.645		0.624			
Q2						0.803	0.709			
Amount	3.499	2.192	2.051	1.953	1.674	1.378	12.747			
Contribution (%)	17.496	10.958	10.256	9.764	8.370	6.891	63.736			
Cumulative	17.496	28.454	38.710	48.475	56.845	63.736				

## IV. DISCUSSION

- ♦ 7 items were extracted for the first factor and their contribution was 17.496%. Items Q14, Q15, Q19, Q16, Q18, Q20 and Q3 were extracted. We inferred that the four items extracted were associated with psychological effects and interpreted them as "psychological factors" here.
- ◆ 3 items were extracted for the second factor and their contribution was 10.958%. Items Q7, Q12 and Q6 were extracted, which we interpreted as "traditional factors" here, with a focus on the high factor loading item "Judo is a sport played worldwide" extracted.
- ◆2 items were extracted for the third factor and their contribution was 10.256%. Items Q5 and Q11 were extracted. As the item "thick fingers due to playing Judo" extracted is most closely related to the body, we interpreted them as "physical factors" here.
- ◆ 4 items were extracted for the fourth factor and their contribution was 9.764%. Items Q10, Q4, Q9 and Q1 were extracted. With a focus on the high factor loading item "Judo equals Jigoro Kano" extracted, we interpreted them as "traditional factors."
- ◆ 3 items were extracted for the fifth factor and their contribution was 8.370%. Items Q13, Q17 and Q8 were extracted. With a focus on the high factor loading item, "squashed ears due to playing Judo" extracted, we interpreted them as "physical factors" here.
- ◆ One item was extracted for the sixth factor and its contribution was 6.891%. As it is normally very difficult to define factors from a single item in interpreting factors, we put it "uninterpretable" here.

## V.CONCLUSION

Although Judo is in general said to be what "moral self-cultivation method," "competitive method," "physical education method," namely "mind," "techniques," "body" advocated by the founder of Judo Master Jigoro Kano are integrated, it is inferred from Table 2, seen from a result of this survey, that physically negative aspects are shown in Americans with experience in Judo, of competitive Judo, namely Judo as a sport apart from the Judo deemed ideal by Master Kano as we mentioned in the objective of this study. Also, as seen from Table 3, a 0.1% standard significant difference was seen in the second and third factors as a result of a significance test of the average of male and female values. As also seen from the factors extracted, the Judo deemed ideal by the founder of Judo Master Jigoro Kano, is inferred to be spread as two separate things, "Modern Judo" as a competitive sport and "Traditional Judo" as a traditional spiritual culture.