

6. Di Masi F. (2000) *Hidro – Propriedades Físicas e aspectos Fisiológicos*. Ed Sprint, Rio de Janeiro, p 109.
7. Dumitru G. (1997) *Sănătate prin sport pe înțelesul fiecăruia, sub egida Federației Sportul pentru Toți*, București.
8. Edward Yah *Validation of UKK Walk Test in Singapore Population*, p. 27. http://www.ifafitness.com/pros/UKK_Walk_Test.pdf
9. Figueiras T. (2005) *Hidroginastica uma actividade para todos. Texto de Apoio apresentado ao Instituto Superior da Maia*, p. 5.
10. Foley, A., Halbert, J., Hewitt, T. I Crotty, M. (2003) *Does hydrotherapy improve strength and physical function in patients with osteoarthritis—a randomised controlled trial comparing a gym based and hydrotherapy based strengthening programme*. *Annals of Rheumatic Diseases*, No. 62(12), p. 1162-1167.
11. Gomez M. F., Ghiorzi V, Loss J. F., Gomes L. E., (2010) *Caracterização das cargas de flutuação de implementos de hidroginástica e hidroterapia*, *Revista Mackenzie de Educação Física e Esporte*, No. 10(1): p. 64-75.
12. Jorien E Strijk, et al. (2010) *Aerobic capacity and vitality. Associations between VO₂max and vitality in older workers: a cross-sectional study*, *BMC Public Health*, Nov 9,10: 684, p. 24-38.
13. Moreno JA., (2006) Gutiérrez M. *Programas de actividades acuáticas*, *Fac. de Educación. Univ. de Murcia*, p13.
14. Oja P, et al. (1991) *A 2-km walking test for assessing the cardiorespiratory fitness of healthy adults*. *Int J Sports Med*, 12, p.356-362.
15. Prada R. A. C., et al. (2005) *Valoracion fisiologica de un program de actividad fisica en adultos*, *ARCHIVOS DE MEDICINA DEL DEPORTE*, Vol. XXII – No. 105, p 9-18, p 14,12.
16. Prentice W. E., Voight M. L. (2003) *Técnicas em Reabilitação Musculoesquelética*. Porto Alegre: Artmed.
17. Raija MT, Laukkanen RMT, Oja P, Ojala ME, Vuori IM (1992) *Feasibility of a 2-km walking test for fitness assessment in a population study*. *Scand J Soc Med*, No. 20, p. 119-125.
18. Ramirey L. P. et all. (2005) *Aquagym: Unapropuesta original de actividad fisica*, (1 de 21), p. 2, <http://www.inatacion.com/contenidos/articulos/salud/aquagym/aquagym.html>
19. Rebullido Rial T. Lameiro Villanueva C. (2011) *Clasificación de las nuevas tendencias en las actividades acuáticas dirigidas*. *EFDeportes.com*, *Revista Digital*, Buenos Aires, No 155, p. 1. <http://www.efdeportes.com/efd155/nuevas-tendencias-en-las-actividades-acuaticas.htm>
20. Shono T., et al. (2001) *Cardiorespiratory response to low intensity walking in water and on land in elderly women*. *Journal of Physiological Anthropology and Applied Human Sciences* No. 20, p. 269-274.
21. Yu, E., et al. (1994) *Cardiorespiratory responses to walking in water*. *Revista: Medicine and Science in Aquatic Sports*. Eds: Miyashita, M., Mutoh, Y. and Richardson, A. Basel: Karger, p. 35-41.

STUDY ON THE DEVELOPMENT MODEL OF HIGH PERFORMANCE JUDO COMPETITION

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Abstract

Study on the development of the competitive performance in judo, demonstrating the need to restructure the content of education and training. Coaches and Methodists were recorded and analyzed judo competitions in order to achieve the development of technical projects in national and international championships. Remodelling, training, specific training procedures allows coaches and athletes, good planning and preparation. Determine the means and methods of integrating competitive; please ensure effective training to improve outcomes athletes. The paper presents data on the actions undertaken high-yield high-level competitions. The paper stresses the need for athletes and coaches to adapt to the requirements and implications of the battle.

Keywords: sports, high performance, competition, training, judo.

INTRODUCTION

The evolution and dynamics of sport science experts in the field force, to finding new solutions to optimize athletic training in judo competition in

accordance with specific requirements. Experts field (coaches, athletes, researchers), demonstrates the need to address increased attention determinants of success in judo. The data obtained by us during

this research demonstrates that technical and tactical preparation are two "fundamentals of performance in competition judo" [1]. Hypothesis that athletes in judo, based on the best technical training, provide the foundation for tactical preparation is confirmed by the data collected, which is an important direction for training and orientation in competitive judo. The findings of the research, points out that the high results, victory is determined largely technical and tactical actions.

THE AIM AND RESEARCH OBJECTIVES

The research objectives of our research, is to determine the relationship between technical training and tactical performance as judo. Trying to build a model of training in technical and tactical allow athletes and coaches enrolled in high performance sport activity to select the best methods and training.

THE METHODOLOGY

The study is based on analysis of video recordings of matches and technical data, the organization of competitions in the World and European Championships, Olympics, in the period 2008-2012. We used information provided by the coaches of Olympic Teams, Romanian Judo Federation. Data obtained from the analysis of this information has been gathered and statistically analyzed and plotted to determine the possibility of "optimizing the relationship between technical training and competitions" [2] for judo athletes. Organization and classification of technical and "tactical data surveyed is based on international algorithmic system " [3], which is determined by the complexity and specific actions (attacks, counterattacks). In the study, it is considered offensive actions in combat, technical

procedures executed by the two sports during the competition, "provided that the technical execution, to determine the design of the opponent" [4]. For shares of attack in the fight to her, was "included in the calculation, only actions that led to a score" [5]. To determine the effectiveness of the technique in appropriate proportions and tactical actions performed by the two athletes, we used the ratio of total shares and shares made after that was a score. Throughout, conduct research, have been followed, "permanent motor actions and procedures carried out in all weight categories" [6]. These data allow the achievement of the overall model, the techniques performed. Research data, may represent a starting point for the development of specific models corresponding to each category of athletes.

RESULTS AND DISCUSSION

Based on data recorded and processed in the research, it is clearly demonstrated that the "fight take up most of the technical stock model" [7]. Combat model structure consisting of technical and tactical procedures, especially the shoulder and leg, occupying more than 67% of all actions taken. This model "has a structure significantly different from previous models presented in the literature" [8]. Tactic in direct combat, occupy more than 75% of the entire structure of competition in comparison with the actions of ground fighting, which occupies about 25%. In ground combat, technical model is characterized by the fact that the actions of detention and bottleneck are very effective, causing rapid getting up or victory. They are used to determine the "procedures for efficiency and high-risk" [9] or sacrifice, in combination with ground fighting, where the proportion of such actions is low.

Table 1. The technical and efficient executions in competitions

No	The technical elements and procedures performed in competition	Total number of the attack, counterattack	Number of actions performed on the left side	Number of actions performed on the right side
1	SEOI-NAGE	216	129	87
2	UCHI- MATA	170	102	68
3	TAI-OTOSHI	40	22	18
4	O-UCHI-GARI	74	44	30
5	KO-UCHI-GARI	48	37	11
6	HARAI-GOSHI	47	25	22
7	O-SOTO-GARI	32	18	14
8	KO-SOTO-GARI	30	17	13
9	YOKO-OTOSHI	21	12	9
10	SEOI-OTOSHI	26	14	12
11	TANI-OTOSHI	23	13	10
12	KATA-GURUMA	31	17	14
13	DE-ASHI-HARAI	32	17	15
14	SASAE-TSURI	8	3	5
15	MOROTE-GARI	30	16	14
16	TOMOE-NAGE	43	25	18
17	SUMI-GAESHI	35	15	20

18	O-GOSHI	41	24	17
19	URA-NAGE	14	10	4
20	SUMI-OTOSHI	20	5	15
21	KIBISU-GAESHI	18	9	9
22	USHIRO-GOSHI	30	17	13
23	SODE-TSURI-KOMI-GOSHI	25	15	10
24	OTHER	26	16	10
25	TOTAL	1080	622	458

Table 2 The technical actions in the fight to the ground.

No.	The technical elements and procedures performed in competition	Total number of the attack, counterattack	Effective percentage of shares (with score)
1	KESA - GATAME	49	18
2	KATA - GATAME	38	14
3	KAMI - SHIHO - GATAME	21	7.7
4	YOKO - SHIHO - GATAME	12	4.4
5	TATE - SHIHO - GATAME	8	3
6	NAMI - JUJI - JIME	15	5.5
7	GYAKU - JUJI - JIME	9	3.3
8	KATA - JUJI - JIME	12	4.4
9	OKURI - ERI - JIME	36	13.7
10	TSUKIKOMI - JIME	25	9
11	UDE - HISHIGI - JUJI - GATAME	32	11.5
12	UDE - HISHIGI - WAKI - GATAME	5	2.5
13	UDE - HISHIGI - SANKAKU - GATAME	3	1
25	OTHER	5	2
26	TOTAL	270	100

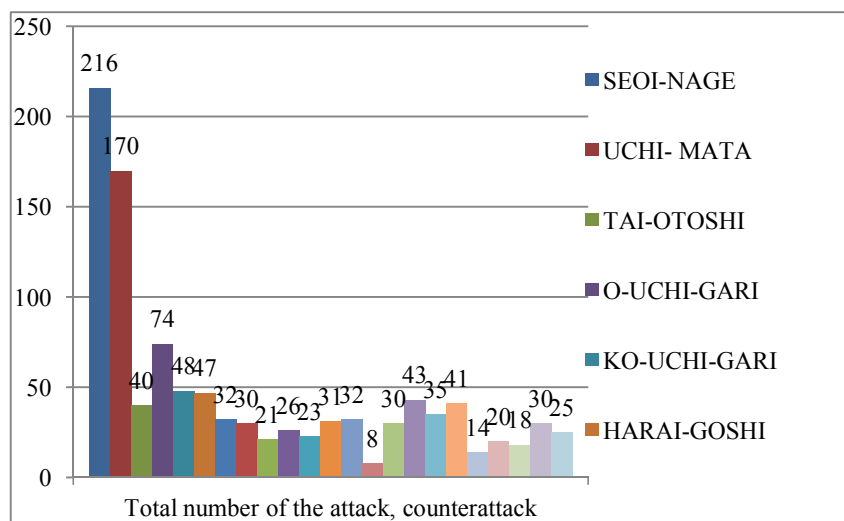


Fig. 1. Main technical stock structure

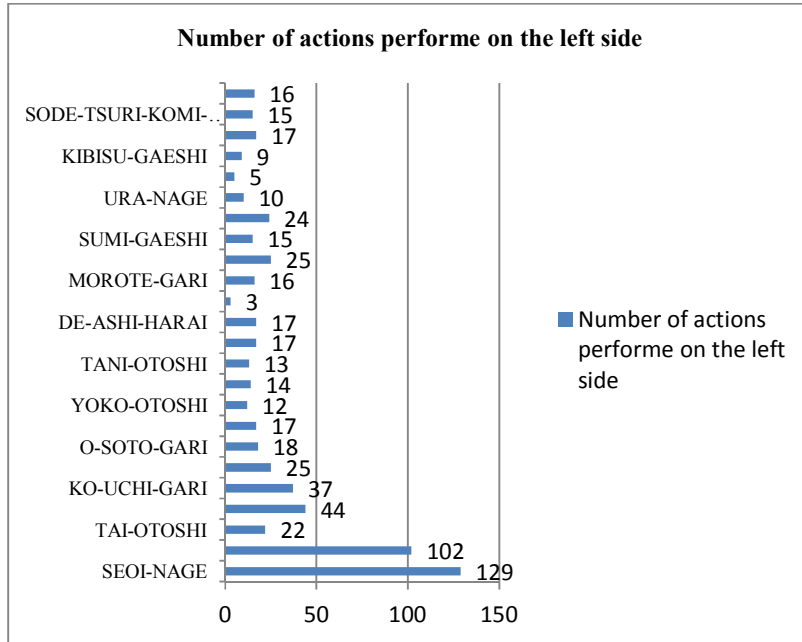


Fig. 2. The structure actions performed on the left

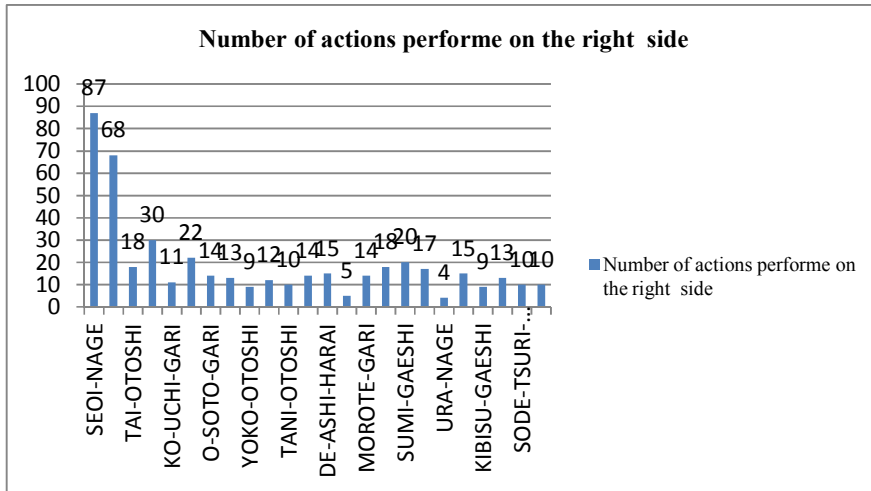


Fig. 3. The structure actions performed on the right side

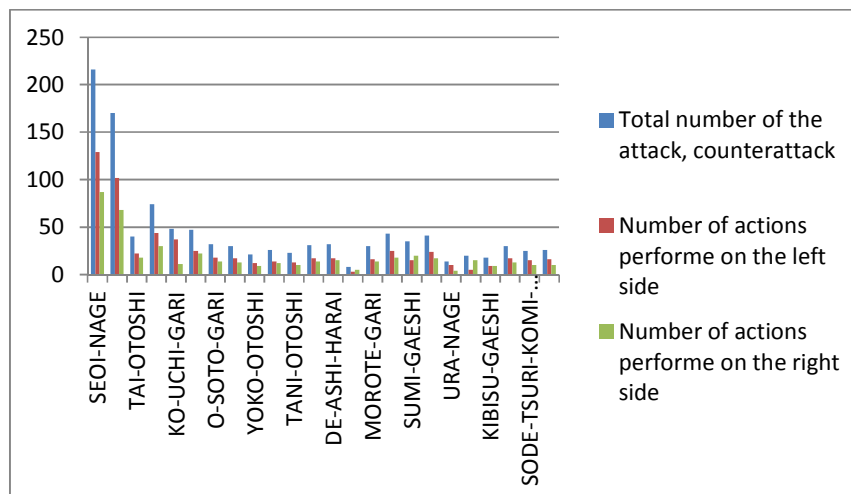


Fig. 4. The global technical and efficient executions

CONCLUSIONS

The data presented in this study, we found that our analysis is conclusive enough to describe trends shaping the competitive training in judo. Through our study, we proposed, to draw general characteristics of performance capacity regarding action taken in battle. Based on the data presented, we can draw the following conclusions:

- technical model for all weight categories is dominated by technical actions struggling glued legs
- the main processes are present in the structure of the competitive model of the shoulder, hip and leg
- the fight standing shares are preferred due to high performance
- the shares of ground fighting, occupy a smaller percentage in the competitive model structure but are very effective
- are preferred actions taken in combination so bottlenecks and dislocation, with high efficiency
- technical elements are performed maybe dominant party but the left side, the effect creativity developed in the sport
- competitive model structure does not correspond with traditional training, having to restructure training on new goals.

REFERENCES

1. Bocioaca, L., Hantau I., Training in judo. 1998. Physical training and technique. Publisher University of Pitesti, (pp. 100).
2. Hantau I., 2000. The structure of training in judo. Publisher Printech, (pp.110). Bucharest.
3. Bocioaca L., 2007. Judo training and competition. Publisher Morosanu, (pp67). Bucharest.
4. Nicu A., 1993. Modern sports training. Publisher Editis, (pp.220). Bucharest.
5. Hantu I., Bocioaca L., 1999. The analysis of functional and interrelations of training in judo. International conferences, scientific, N.S.A., Sofia.
6. Stupineanu I., 1970. Simulation and simulator in professional sport. Publisher Sport Disk, 317, Bucharest.
7. Gagea A., 1999. The methodology of scientific research in sports training. Publisher Romania Tomorrow, (pp. 180). Bucharest.
8. Dragnea A., 1996. Sports Training. Publisher Didactic and pedagogical, R.A, (pp. 140). Bucharest.
9. Dahnovshi C.V., Lescenko S., 1990. Preparation of high performance fighter. Publisher C.C.P.S., 307- 307. Bucharest.