

COMPETITIVE ACTIVITY OF HIGHLY SKILLED FREESTYLE WRESTLERS AT THE PRESENT **STAGE**

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Annotation. Purpose: to compare competitive activity of highly skilled freestyle wrestlers after making adjustments to the wrestling rules. Material: the analysis involved 80 bouts performed by high skilled wrestlers at 2011 World Wrestling Championships (Ankara, Turkey) and 2012 Olympic Games in London (weight categories 84 and 96 kg). Results: the resultant technical actions have been analyzed in the standing position performed by highly skilled freestyle wrestlers in major events of the annual cycle for the last three years. The characteristic changes in a competitive activity of highly skilled freestyle wrestlers in the weight categories 84 and 96 kg have been determined. We identified the techniques which were used most frequently in different periods of bout by elite athletes: spurt moving, throwing by knock, pressing, pushing the mat, etc. <u>Conclusions</u>: the competitions in the training of athletes are not only a means of controlling the level of preparedness, the process for deciding the winner, but also an important means of improving fitness and sports mastership. In the future, specialists can use these features of competitive activity in determining the overall training strategy of freestyle wrestlers to competitions at various levels.

Keywords: competitive activity, technique, freestyle wrestlers.

Introduction

Permanent increasing of sports records, competition on international sport arena, expansion of sport calendar owing to commercial competitions resulted in intensification of training process and competition functioning, in significant increasing of loads on sportsman's organism [3, 4,11, 12, 14].

Competition functioning stipulates demonstration and evaluation of sportsmen's abilities in different kinds of sports in compliance with appropriate rules, motion functioning, means of competition contest and evaluation of results [1, 2, 15].

Many specialists have opinion that clear and complete knowledge about content and results of competition functioning in every separate kind of sports are necessary, first of all for the following:

- determination of general strategy of training selection of means and methods of training, parameters of training loads, using of extra-training factors;
- objectification of sport results in certain competition possibility of prompt and accurate determination of reasons of success or failure;
 - timely correcting of training plans;
- increasing of tactic training's effectiveness, in particular, choosing of tactic variant of participation in certain competition, adequate purpose of participation and potentials of possible adversaries;
 - simulation in trainings of actual competitions' conditions [5, 6, 9].

International federation of wrestling (IFW) is actively searching of competition rules, oriented on increasing of dynamic and show character of wrestlers' duel. In 2005 IWF introduced new changes in competition's rules. All duels in every weight category shall start and finish within one day. Wrestler has to conduct 4-6 duels in average during 8-12 hours. Changes took place also in duration of a duel. New formula of a duel is three periods (two minutes each of them) with 30 seconds breaks: at the end of every period winner is to be determined; wrestler, who won two periods, is called a winner and the third period is abolished; pure victory automatically finalizes duel independent on the period, in which it happened.

Recent year specialists [7, 8, 10, 13] have been paying much more attention to studying of competition functioning laws.

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Purpose, tasks of the work, material and methods

The purpose of the work is to compare competition functioning of elite free style wrestlers after correcting of wrestling rules.

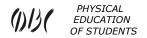
The methods of the research: analysis of special scientific-methodic literature, pedagogic observation, methods of mathematical statistics.

Results of the research

We have analyzed 80 duels at world championship 2011 on free style wrestling (Ankara, Turkey) and Olympic Games in London 2012 (weight categories 84 and 96 kg): 4 final duels; 6 duels for 3-5 places; 7 duels of ½ final; 11 duels of ¼ final; 21 duel of 1/8 final; 11 duels of 1/16 final; 12 duels of qualification round; 8 duels of consolation round, which were conducted in compliance with rules, approved before September 2013.

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With analyzing of competition functioning we accentuated our attention at technical actions in stance.

In the process of our research we determined that referees evaluated 313 efficient attacking actions in stance: in first period they evaluated 130 attacking actions, in the second -138, in the third -45 (see table 1).

Table 1
Efficient technical actions in stance, fulfilled by elite free style wrestlers at world championship 2011 (ANKARA,
Turkey) and Olympic Games 2012, in London (weight categories 84 and 96 kg) кг)

Nos.	Groups of techniques		Period of duels		
			1	2	3
1.	Re-positions by jerk	111	46	44	21
2.	Knock down by pushing	68	28	35	5
3.	Pushing out of mat	68	26	34	8
4.	Re-positions by duck	38	16	15	7
5.	Throws by bent	12	5	4	3
6.	Throws by arching	9	4	4	1
7.	Knock down by twisting	5	3	2	-
8.	Throws by turns	2	2	-	-
	Total 313		130	138	45

Analysis of competition functioning of elite free style wrestlers at main competitions of annual cycle witnesses that group of techniques "jerk re-positions", which are most frequently used by sportsmen in stance, is characterized by the following features of techniques: jerk re-position with hold of legs were fulfilled 54 times, jerk re-positions with hold of namesake shoulder and thigh (torso) -31 times, jerks with hold of neck from above and shoulder -18 times, jerks with hold of arm (with undercut) -8 times.

In the first period, in this group of techniques, the most frequently used ones was re-position with hold of leg – was fulfilled 22 times. At the second place, by frequency of fulfillment, is jerk re-position with hold of namesake shoulder and thigh (torso) – 14 times, at the third place – jerk re-position with hold of neck from above and shoulder – 6 times and technique "jerk re-position with hold of arm (with undercut)" – 4 times.

To some extent different picture was registered in the second period of competition duel. It was necessary to note that, like in the first period, the most frequently used technique was "jerk re-position with hold of leg" (25 times), "jerk re-position with hold of namesake shoulder and thigh (torso) -6 times.

Technique "jerk re-position with hold of arm (with undercut) was fulfilled 4 times, while in the third period this technique was not applied by sportsmen at all. Technique jerk re-position with hold of namesake and thigh (torso) was fulfilled by sportsmen in the third period the most frequently -11 times; jerk re-position with hold of leg -7 times and jerk re-position with hold of neck from above and shoulder -3 times.

Knock down by pushing with hold of legs was evaluated by referees 31 times, knock down by pushing with hold of one $\log - 28$ times, knock down by pushing with hold of arm, torso and step from outside - 5 times; knock down by pushing with hold of arm and namesake $\log (\min) - 3$ times; knock down by pushing with hold of \log , torso and shin hook from inside - 1 time.

In the first period knock down by pushing with hold of legs was fulfilled 12 times, while knock down by pushing with hold of one $\log - 11$ times. Knock down by pushing with hold of arm, torso with hook of \log from outside (step from outside) – was fulfilled 3 times. It is also interesting that the least fulfilled in the first period techniques were the following techniques: "knock down by pushing withhold of arm and namesake \log (mill) and knock down by pushing with hold of \log , torso with shin's hook from inside, which were fulfilled 1 time.

In the second period knock down by pushing with hold of legs was fulfilled 17 times, and with hold of one leg -14 times. Knock down by pushing with hold of arm, torso with outside hook of leg and knock down by pushing with hold of arm and namesake leg (mill) were fulfilled 2 times.

In the third period sportsmen fulfilled only two techniques: knock down by pushing with hold of one leg - 3 times and knock down by pushing with hold of both legs - 2 times.



From group of techniques "pushing out of mat with hold of leg" was fulfilled 27 times, pushing out of mat with hold of one leg and torso -25 times, pushing out of map with hold of arm, torso (rest on breast) -9 times, pushing out of mat with hold of legs -4 times, pushing out of mat with hold of neck from above and shoulder -3 times.

Analyzing frequency of sportsmen's application of techniques "pushing out of mat" we determined that in the first period pushing out of mat with hold of leg and torso was fulfilled 12 times; pushing out of mat with hold of one leg -6 times; pushing out of mat with hold of arm and torso -4 times; pushing out of mat with hold of legs -3 times and pushing out of mat with hold of neck from above and shoulder -1 time.

In the second period sportsmen applied pushing out of mat with hold of one leg - 19 times, pushing out of mat with hold of leg and torso - 10 times, pushing out of mat with hold of arm and torso - 5 times.

In third period pushing out of mat with hold of one leg was fulfilled by elite sportsmen 2 times, pushing out of mat with hold of one leg and torso -3 times, pushing out of mat with hold of both legs -1 time, pushing out of mat with hold of neck from above and shoulder -2 times.

From group of techniques "duck re-position with hold of torso" was most frequently used by free style elite wrestlers -15 times, duck re-position with hold of one leg -14 times, duck re-position with hold of both legs -7 times, duck re-position with hold of arm and thigh -2 times.

Detail analysis of first period of competition duels permitted to range this group's techniques by frequency of their fulfillment in the following way: 1- duck re-position with hold of torso (7 times); 2 – duck re-position with hold of one leg (5 times); 3 – duck re-position with hold of arm and thigh (2 times each). In the second period the most frequently used techniques were duck re-position with hold of torso and duck re-position with hold of one leg, which were fulfilled 6 times each. Duck re-position with hold of both legs was fulfilled 3 times, while duck re-position with hold of both legs and duck re-position with hold of torso were fulfilled by sportsmen 2 times each.

The most frequently used techniques of group "throws in bent" was throw in bent with hold of both legs, which was fulfilled 6 times. Throw in back bent with hold of one leg was applied 4 times and throw in bent with hold of opposite arm and leg and throw in bent with hold of opposite arm and thigh from aside were fulfilled 1 time each.

In the first period throw in bent with hold of both legs and throw in back bent with hold of opposite arm and leg were fulfilled 1 time each. Analyzing the second period we determined that sportsmen used throw in bent with hold of one $\log - 3$ times and with hold of opposite arm and thigh – one time. In the third period sportsmen fulfilled throw in bent with hold of both $\log - 1$ time and throw in bent with hold of $1 \log - 2$ times.

In group of techniques "throws in arching" the most frequent were throws in arching with hold of neck from above and shoulder -4 times; throws in arching with hold of torso from behind -3 times and throws in arching with hold of arm and torso from aside throws in arching with hold of arm and torso with embracing -1 time each.

In the first period throw in arching with hold of neck from above and shoulder, throw in arching with hold of torso from behind, throw in arching with hold of arm and torso from aside and throw in arching with hold of arm and torso with embracing were fulfilled 1 time each of them. In the second period the most frequently used techniques were throw in arching with hold of neck from above and shoulder (3 times) and throw in arching with hold of torso from behind (1 time). Distinctive feature of the third period of competition duel is that sportsmen used only one technique of this group - throw in arching with hold of torso from behind (1 time).

From group of techniques "knock down by twisting", which were efficiently evaluated by referees at such competitions we determined the following peculiarity: knock down by twisting with hold of arm and torso was fulfilled 2 times; knock down by twisting with hold of both arm and embracing from inside -1 time; knock down by twisting with hold of neck from above and arm from below -1 time.

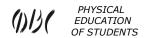
Detail analysis of first period permitted to determine that sportsmen fulfilled 2 times knock down by twisting with hold of arm and torso and 1 time - knock down by twisting with hold of both arms and embracing from inside. In the second period wrestlers applied knock down by twisting with hold of neck from above and shoulder 1 time). Analysis of the third period of competition duel witnesses that this group's techniques were not applied at all by sportsmen.

Analysis of the obtained data points at the fact that in group of techniques "throws by twisting", techniques with holding of namesake arm and leg and with hold of arm were used 1 time each and only in first competition period. In second and third competition periods sportsmen did not apply these techniques.

In May 2013, in Moscow, at unscheduled congress of IFW there were entered substantial corrections in rules of wrestlers.

These changes touched upon the following moments:

- Duration of duel shall be 2 periods (3 minutes each of pure time for adult wrestlers and junior) and 2 periods (2 minutes of pure time for cadets) with 30 seconds breaks between periods;
 - resulting points will be total by sum of periods;
- the procedure of determination of passivity also changed for passive behavior on mat sportsman, first, will receive two oral remarks; after second remark he will have 30 seconds for fulfillment of a technique and is he fails it, his adversary will receive one point; in Graeco-Roman wrestling this 30 second period is not applied. More active wrestler will be offered a choice: to continue duel in stance or in "par terre";
 - points for re-positioning of adversary in "par-terre" changed from one to two points;
 - technical advantage, after which duel shall be stopped, will be 7 points.



At world championship on free style wrestling, which took place in the period from September 16^{th} to Sep6tember 22^{nd} (in Budapest, Hungary), competition functioning of wrestlers was evaluated by referees in compliance with new rules.

We have analyzed 51 duels in weight categories 84 and 96 kg: 2 final, 4 duels for 305 places; 4 duels for $\frac{1}{2}$ final; 8 duels of $\frac{1}{4}$ final; 7 duels of $\frac{1}{8}$ final; 19 duels of $\frac{1}{16}$ final; 5 duels of qualification round and 2 duels of consolation round (weight categories 84 and 96 kg).

We have determined that referees evaluated 160 efficient actions in stance. It is interesting that both in first and in second periods they evaluated 80 attacks (50%) (see table 2).

Table 2

Efficient technical actions in stance, fulfilled by elite free style wrestlers at world championship, 16-22.09.2013

(Budapest, Hungary) (weight categories 84 and 96 kg) KZ)

Nos.	Groups of techniques		Period of duels		
			1 st period	2 nd period	
1.	Jerk re-positions	69 (43,1%)	31 (38,8%)	38 (47,5%)	
2.	Knock down by pushing	43 (26,9%)	23 (28,8%)	20 (25%)	
3.	Duck re-positions	8 (5%)	4 (5%)	4 (5%)	
4.	Throws by arching	5 (3,1%)	1 (1,2%)	4 (5%)	
5.	Squatting re-positions	4 (2,5%)	2 (2,5%)	2 (2,5%)	
6.	knock down by twisting	3 (1,9%)	3 (3,8%)	0	
7.	Throws in bent	2 (1,2%)	1 (1,2%)	1 (1,2%)	
8.	Pushing out of mat	26 (16,3%)	15 (18,6%)	11 (13,8%)	
	Total 160 (100%)		80 (100%)	80 (100%)	

Analysis of competition functioning of free style elite wrestlers witnesses that group of techniques "jerk repositions", which are most frequently used by sportsmen in stance (69 times), characterized by the following peculiarities of technical actions: jerk re-positions with hold of legs were fulfilled 32 times, jerks re-positions with hold namesake shoulder and thigh (torso) – 24 times, jerk re-positions with hold of neck from above and shoulder – 13 times.

In this group of techniques in first period the most frequently used technique was jerk re-position with hold of leg, which was fulfilled 14 times.

On the second place there is technique jerk re-position with hold of namesake shoulder and thigh (torso) -13 times; on the third place – jerk re-position with hold of neck from above and shoulder – 4 times. In the second period the picture of competition duel was practically identical. On the first place, by frequency of application there is a technique – jerk re-position with hold of leg, which was fulfilled 18 times; on the second place – jerk re-position with hold of namesake shoulder and thigh (torso) - 11 times; on the third place – jerk re-position with hold of neck from above and shoulder – 9 times.

The second, by frequency of application, are techniques of knock down by pushing, which were fulfilled by elite sportsmen at world championship 43 times (26.9%).

Knock down by pushing with hold of one leg was evaluated by referees 20 times, knock down by pushing with hold of two legs -18 times, knock down by pushing with hold of arm, torso and outside hook of leg -2 times, knock down by pushing with hold of leg, torso and inside shin hook -2 times, knock down by pushing with hold of arm and namesake leg (mill) -1 time.

In the first period wrestlers fulfilled knock down by pushing with hold of two legs 6 times. It is interesting that sportsmen fulfilled less of all knock down by pushing with hold of arm, torso and outside hook, knock down by pushing with hold of leg, torso and inside shin hook as well as knock down by pushing with hold of arm, namesake leg (mill), which were fulfilled 1 time.

In the second period the picture of competition duel was a little bit different. Elite wrestlers fulfilled the most frequently knock down by pushing with hold of two legs -12 times and knock down by pushing with hold of one legs 6 times. Knock down by pushing with hold of arm, torso and outside hook of leg as well as knock down by pushing with hold of one leg, torso and inside shin hook were applied, like in first period -1 time each. Knock down by pushing with hold of arm and namesake leg (mill) did not applied by sportsmen in the second period at all.



From group of techniques "duck re-positions' elite free style wrestlers used the most frequently the following: duck re-position with hold of leg - 5 times; duck re-position with hold of torso - 2 times; duck re-position with hold of two legs - 1 time.

Detail analysis of the first period of competition duel witnesses that in the first period the most frequently were used the following techniques: duck re-position with hold of leg (2 times), duck re-position with hold of torso (1 time), duck re-position with hold of two legs (1 time).

In the second period the most frequently used technique was duck re-position with hold of one leg, which was applied 3 times. Duck re-position with hold of torso was applied only one time.

In group "throws in arching" the most frequently used techniques were the following: throws in arching with back hold of torso -2 times, while such techniques as throws in arching with hold of arm and torso from aside, throws in arching with hold of arms and torso with embracing as well as throws in arching with hold of arms were fulfilled by elite sportsmen 1 time each.

With it, it is necessary to pay attention to the fact that in the first period of competition duel there was applied only one throws in arching with hold of arm and torso with embracing. Accordingly, in the second period throws in arching with back hold of torso were fulfilled 2 times and throws in arching with hold of arms and torso from aside were fulfilled only 1 time.

Analysis of frequency of elite sportsmen's fulfillment of re-positions by squatting witnesses that during all duel this group's techniques were fulfilled 4 times. It should be noted that like in the first period of competition period in the second one re-position by squatting with hold of legs were fulfilled 1 time each.

From group of techniques "knock down by twisting" the most frequently applied by elite wrestlers were the following techniques: knock down by twisting with hold of neck from above and shoulder -2 times, knock down by twisting with hold of arm and torso -1 time.

It is also interesting that techniques of this group were applied by elite sportsmen only in the first period of competition duel.

From group of techniques "pushing out of mat", pushing out of mat with hold of leg was fulfilled by wrestlers 8 times, pushing out of mat with hold of arm from above -6 times, pushing out of mat with hold of leg and torso -5 times, pushing out of mat with hold of torso -3 times, pushing out of mat with hold of neck from above and shoulder -2 times.

Analyzing frequency of sportsmen's application of this group's techniques we determined that in the first period pushing out of mat with hold of one leg was fulfilled 6 times, pushing out of mat with hold of arm from above – 3 times, pushing out of mat with hold of leg and torso – 4 times, pushing out of mat with hold of torso - 2 times.

In the second period sportsmen used pushing out of mat with hold of arm from above -3 times, pushing out of mat with hold of leg -2 times, pushing out of mat with hold of two legs -2 times, pushing out of mat with hold of neck from above and shoulder 2 times and pushing out of mat with hold of torso and with hold of leg and torso -1 time each.

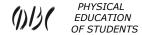
Conclusions:

Generalizing views of many leading specialists in the field of sport science we can state that sport competitions in Olympic sports are central element, which determine all system of organization, methodic and training of sportsmen for their efficient competition functioning.

Analysis of special scientific-methodic literature permits to affirm that in system of sportsmen's training competitions are not only a mean of control of fitness's level, mean of determination of a winner, but also an important mean of improvement of fitness's level and sportsmanship.

In the process of our research we have determined specific features of competition functioning of elite free style wrestlers of weight categories 84 and 96 kg at main competitions of annual cycle for recent three years.

The prospects of further researches imply that determined by us specific features of competition functioning can be used, in the future, by coaches for determination of general strategy of free style wrestlers' training for competitions of different level.



References:

- Alikhanov I.I. *Didakticheskie osnovy sovremennoj sportivnoj bor'by* [Didactic principles of modern wrestling] Cand. Diss. Tbylysy, 1982, 71 p.
- Alikhanov I.I. *Sportivnaia bor'ba* [Wrestling], 1984, pp. 20–22.
- 3 Arziutov G.N. *Teoriia i metodika poetapnoj podgotovki sportsmenov* [Theory and methodology of gradual training of athletes (based on judo)], Dokt. Diss., Kiev, 2001, 36 p.
- 4 Arziutov G.N., Borodin Iu.A. *Fiziceskoe vospitanie studentov* [Physical Education of Students], 2010, vol.1, pp. 7–10.
- 5 Vorob'ev V.A. *Soderzhanie i struktura mnogoletnej podgotovki iunykh borcov na sovremennom etape* [The content and structure of a multi-year training young fighters at the present stage], Cand. Diss., Sankt Petersburg, 2011, 51 p.
- Kalmykov S.V., Sagaleev A.S., Dagbaev B.V. *Sorevnovatel'naia deiatel'nost' v sportivnoj bor'be* [Competitive activity in wrestling], Ulan –Ude, Buryat State University Publishing House, 2007, 204 p.
- ⁷ Latyshev N.V., Latyshev S.V., Gavrilin V.A. *Teoriia i praktika fizichnogo vikhovannia* [Theory and practice of physical education], 2008, vol.1, pp. 173-180.
- 8 Latyshev N.V. *Pedagogika, psihologia ta mediko-biologicni problemi fizicnogo vihovanna i sportu* [Pedagogics, psychology, medical-biological problems of physical training and sports], 2009, vol.7, pp. 106-109.
- 9 Matveev L.P. *Obshchaia teoriia sporta i ee prikladnye aspekty* [The general theory of sports and its applications], Moscow, News, 2001, 333 p.
- Patratij R.S. Tendenciia razvitiia tekhniki vol'noj bor'by [Trend of technology wrestling]. *Avtomobile- i traktorostroenie v Rossii* [Automotive industry and tractor industry in Russia], Moscow, 2010, pp. 507-515.
- 11 Platonov V.N. *Nauka v olimpijskom sporte* [Science in Olympic Sport], 2005, vol.1, pp. 106–131.
- 12 Platonov V.N. *Periodizaciia sportivnoj podgotovki* [Periodization of athletic training], Kiev, Olympic Literature, 2013, 624 p.
- Tumanian G.S. *Teoriia, metodika, organizaciia trenirovochnoj, vnetrenirovochnoj i sorevnovatel'noj deiatel'nosti* [Theory, methodology, organization of training, beyond training and competitive activities], Moscow, Soviet sport, 2001, T.3, vol.12, 80 p.
- Bulatova M.M., Platonov V.N. Main directions in optimizing the Olympic preparation system. *Proceeding book kinesiology: new perspectives.* Croatia, 2002, pp. 935 938.
- PIatonov V.N., Bulatova M.M., Kashuba V.A. Biomechanical ergogenic means in modern sport. *Sport science* [Stiinta sportului], 2006, vol.53, pp. 19 49.



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