

CONTROL AND ASSESSMENT OF SPECIAL MOTIVE ABILITY OF VOLLEYBALL PLAYERS

Preliminary communication

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Abstract

Contemporary volleyball characterizes with an increased requirement towards the level of the special motive ability of players. The process of their sport improvement is inextricably bound up with a high basic level of the chief athletic skills, increasing the parameters of the special physical qualities and potential to fulfill the activities planned. These high requirements answer the new approaches with the scientific management and control in the sport. The present investigation is made in this direction, aiming to establish the level of the special motive ability of UNWE (University of National and World Economy) volleyball players, and on this basis, to outline directions for optimizing the physical preparation, both of the team as a whole, and the separate players.

Keywords: volleyball, special motive ability, control, assessment

INTRODUCTION

Sport-pedagogical investigations in contemporary sport take a serious segment in the work on scientific ensuring of the training process. They allow us to define the level of certain physical qualities and technical-tactical abilities. Each governing system needs varied, full and precise information of the object managed.

For the trainer (coach), of primary significance is the availability of an impartial system for control and assessment of the condition of the object to influence upon. Control assists his activity and serves for checking the level of certain indices and their measure up the level desired. According to Aladjov (Аладжов), 1992, in the pedagogical practice, "physical preparation figures as a forming basis of the motive activity of athletes". At the same time, the dynamics and control on the degree of preparation of volleyball players as a main factor of sport results is examined by Dimitrova, (Димитрова), 1999, who underlines the necessity of "applying tests without significant loss of time and worsening the quality of educational - training process". According to Dimitrov (Димитров), 2005, such order of work of the volleyball trainer creates conditions for optimization of the preparation, both of the team as a whole, and certain players. Therefore, within the range of the problem discussed and for the needs of the investigation, we have selected some more important tests, in view of the practice, which inform us of the level of the special physical qualities: Chakarov & Mitev (Чакърлов & Митев), 1985; Petkova, & Kvaritnikova (Петкова & Квартирникова), 1985; Kotev, 2016; Bachmann, 1992.

The investigation carried out targets the optimization of the preparation of the UNWE volleyball team – men, through analysis and assessment of the special motive ability of players, included in it.

METHODS

Investigation was carried out in October, 2016., by 14 players of the representative team of UNWE on volleyball – men have been the object of the survey. 10 tests have been the subject of the survey (Table 1.), giving information of the level of the special motive ability.

To settle the tasks of the survey, we have carried out a thorough literature study of the issue and testing of the volleyball players, to establish the level of development of the special motive ability of players, included in the UNWE volleyball representative team.

The used 10 indices at testing are received from the system applied for control and assessment of special motive ability of volleyball players of Ivanov (Иванов), 2016. In this connection, a great

part of the tests is used as training means in the specialized training programme of Ivanov (Иванов), 2015, suitable for operative control in mezzo cycles. Mathematic-statistical methods have been applied at processing of the exit data from the tests carried out: variation analysis, percentage and SYGMA methods for assessment after Gigova (Гигова), 1999.

In Table 2. are presented the verbal assessments of a normative for special motive ability on a seven-step scale are indicated, through which, a better selection and accuracy at assessment of indices is achieved. The limits used of interval from $-2S$ to $+2S$ include 95,45% of cases and there are results from 30 to 70 points. Using of T-grades gives a greater opportunity for making assessment average, and the better result corresponds to the greater number of points.

Table 1. Test battery for establishment of level of factors investigated

Test No.	Indices	Measure units	Accuracy	Direction of increase
1	Abdominal muscles strength	n	1	+
2	Shoulder girdle strength	m	0,10	+
3	Upper limbs strength	n	1	+
4	Standing position vertical jump with one arm movement	cm	1	+
5	Standing position vertical block jump	cm	1	+
6	Vertical jump after speeding up and one arm touch	cm	1	+
7	Jump skill	n	1	+
8	Special speed of movement (9-3-6-3-9)	sec	0,01	-
9	Movement speed at aggravated conditions (RVI)	sec	0,01	-
10	Movement speed after explosive work with legs (ASSISE)	sec	0,01	-

RESULTS AND DISCUSSION

Analysis of the results from the investigation shows that the homogeneity of the tested volleyball players of UNWE for the beginning of the sport-competitive 2016/2017, as regards the investigated factors, is within the stability.

Values of coefficients of variation (V%) with the bigger part of the investigated indices (Fig.1.) are lower, or about 10%. Only index

Table 2. Normative-assessment table for special motive ability

Evaluation	Points	Normative-assessment table for special motive ability									
		T 1	T 2	T 3	T 4	T 5	T 6	T 7	T 8	T 9	T 10
		n	m	n	cm	cm	cm	n	sec	sec	sec
Very high	70	66	14,38	41	68	66	91	146	6,67	11,37	10,83
	68	64	14,15	40	67	64	89	142	6,79	11,56	10,96
High	66	63	13,90	39	66	62	87	138	6,92	11,74	11,10
	64	62	13,58	38	65	61	86	133	7,04	11,93	11,23
Above average	62	61	13,31	37	64	59	84	129	7,17	12,11	11,37
	60	60	13,04	36	63	58	83	124	7,29	12,30	11,50
Average	58	59	12,77	/	61	56	81	120	7,41	12,49	11,63
	56	58	12,50	35	60	55	80	115	7,54	12,67	11,77
Below average	54	57	12,24	34	59	53	78	111	7,66	12,86	11,90
	52	56	11,97	33	58	52	77	106	7,79	13,04	12,04
Low	50	55	11,70	32	57	50	75	102	7,91	13,23	12,17
	48	54	11,43	31	56	48	73	98	8,03	13,42	12,30
Very low	46	53	11,16	30	55	47	72	93	8,16	13,60	12,44
	44	52	10,90	/	54	45	70	89	8,28	13,79	12,57
Very very low	42	51	10,63	29	53	44	69	84	8,41	13,97	12,71
	40	50	10,36	28	52	42	67	80	8,53	14,16	12,84
Very very very low	38	49	10,09	27	50	41	66	75	8,65	14,35	12,97
	36	48	9,83	26	49	39	64	71	8,78	14,53	13,11
Very very very very low	34	47	9,56	25	48	38	63	66	8,90	14,72	13,24
	32	45	9,29	24	47	36	61	62	9,03	14,9	13,38

Legend: T1 - Abdominal muscles strength; T2 - Shoulder girdle strength; T3 - Upper limbs strength; T4 - Standing position vertical jump with one arm movement; T5 - Standing position vertical block jump; T6 - Vertical jump after speeding up and one arm touch; T7 - Jump skill; T8 - Special speed of movement (9-3-6-3-9); T9 - Movement speed at aggravated conditions (RV1); T10 - Movement speed after explosive work with legs (ASSISE).

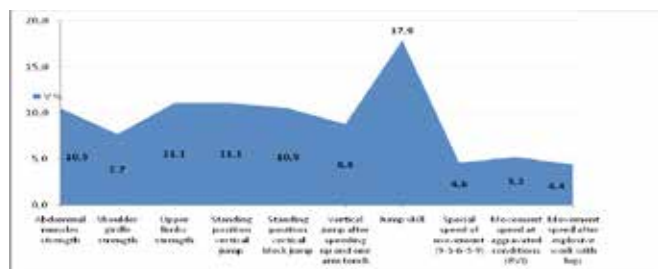


Fig.1: Variety of physical indices of general aggregate

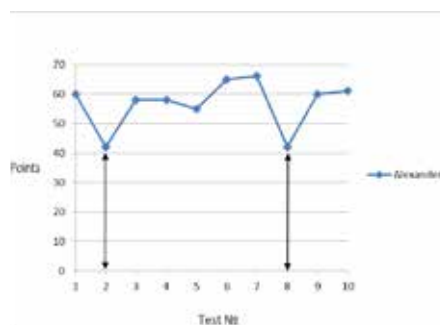


Fig.4: Individual model of physical indices of Alexandar

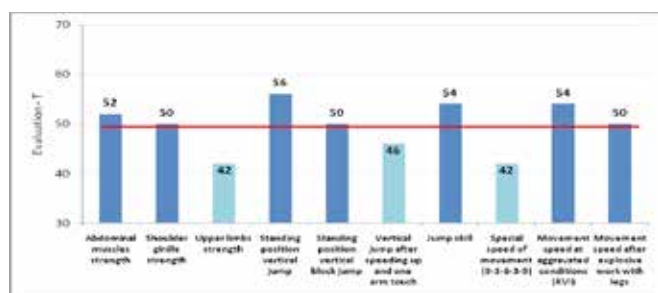


Fig.2: Summarized assessment of physical indices

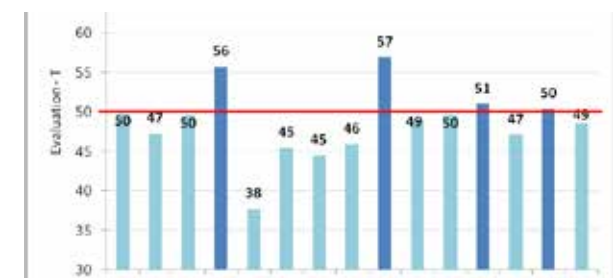


Fig. 3: Summarized individual and team grade of the special motive ability

“Jump skill” makes exclusion by V% = 17,9 due to the characteristic and specific technique to be possessed by the players at the coordination of movements. As a whole, the homogeneity of the investigated persons is logical, taking into consideration the fact, that it carries information mainly of the physical qualities.

Basing the average level of the team, the application of SIGMA method for assessment of the results has allowed making a summarized assessment of the development of the investigated factors, both of the team and the separate players. Analysis of Figure. 2, gives the opportunity to establish the average level of development of the investigated factors for the UNWE team. From the column it is seen that indices „Upper limbs strength” (42 p.), „Vertical jump after speeding up and one arm touch” (Dynamic strength of lower limbs - 46 p.) and „Test 9-3-6-3-9” (specific speed of movement - 42p.) are in column „Under average level” of development on the Normative-assessment table of special motive ability.

Testing is carried out in the beginning of the preparation period and it is normal for a part of the indices to be around and under the average level. At the same time, the results orientate to the parts of the sport preparation to be accentuated on, to compensate for the dropping behind with these indices.

Results presented in Figure. 3., show that summarized grades „Under average” level

for special motive ability is received by only one player with 38 points. Only two players are “Over average” level (56-62 points). All other fall in level “Average”, on normative-assessment (Table 1.) of special motive ability. Here, of significance is giving an individual summarized grade (total of all indices) to each player.

As an example, the model of the player Alexandar (Figure 4.) shows that apart from being with the highest complex grade (57 points), he has a significant dropping behind in the development of the shoulder girdle strength (test 2) and the special speed of movement (test 8). That is, basing the grades received of each player individual programmes are developed for the additional, independent work, to compensate the dropping behind with certain indices.

Analysis of the results from the testing carried out could serve for:

1. Selection of volleyball players in the groups on sport improvement;
2. Assessment of individual condition and development of the player during the training process;
3. Receiving information of the condition of certain indices in the form of fixed quantitative results for following up of the dynamics of development of physical qualities Tsarova (2013);
4. Stage and current control for assessment and control of the ability of the team as a whole for participation in competitions from the calendar of Association University Sport (AUS).

CONCLUSION

In conclusion, the investigation carried out has allowed making an impartial assessment of the specific motive ability and working capacity of volleyball players-men of the team of UNWE, assessment of their transitory condition, as well as the readiness of the team as a whole for the forthcoming matches of the National Students Group. The concrete recommendations made for each one of them would give a possibility of the players to outline the main directions for additional independent work for improvement of the

dropped behind indices, i.e. to put quantitatively measurable prognostic targets – models of the expected future. These models should be personal and achievable. The regular application of the sport-pedagogical tests and assessment tables to them, increase the level of the objective information and allows timely corrections in the structure and content of the training process.

REFERENCES

- Аладжов, К. (1992). Физическата подготовка на спортиста. [Physical training athlete. In Bulgarian.] София. pp.5
- Bachmann, Edi et Martin. (1992). 1000 Exercices et Jeux de Volley-Ball. [1000 exercises and games Volleyball. In French.] Paris: pp. 238-240.
- Църова, П. (2013). Проблеми на контрола в баскетбола. [Problems of control in basketball. In Bulgarian.] София: Бolid Инс.
- Чакъров, Т., & Митев, Г. (1985). Единна програма по волейбол. [Unified program in volleyball. In Bulgarian.] София: ЦС на БСФС.
- Димитров, С. (2005). Порядък за работа на треньора по волейбол (ръководство). [Methodology of volleyball coach work (guide). In Bulgarian.] София: НСА-ПРЕС.
- Димитрова, П. (1999). Динамика и контрол на физическото развитие, дееспособността и психомоториката на волейболистки 11-18 години. [Dynamics and control of physical development, legal capacity and psychomotor performance of girl volleyball players 11-18 years old. In Bulgarian.] (Unpublished doctoral dissertation, National Sports Academy “Vassil Levski”, Sofia). София: НСА
- Гилова, В. (1999). Статистическа обработка и анализ на данни. Базова статистика. [Statistical processing and analysis of data. Basic statistics. In Bulgarian.] София: НСА.
- Иванов, П. (2015). Специализирана тренировъчна програма за подготовка на квалифицирани волейболисти от НВЛ - Висша Лига. [Specialized training program for training of skilled volleyball players from NVL - Premier League. In Bulgarian.] София., Спорт и наука, 3, 16-23.
- Иванов, П. (2016). Оптимизиране на тренировъчния процес по волейбол чрез прилагане на динамични упражнения за контрол на топката. [Optimizing the training process in volleyball by applying dynamic exercises control of the ball. In Bulgarian.] (Unpublished doctoral dissertation, National Sports Academy “Vassil Levski”, Sofia). София: НСА.
- Kotev, V. (2016). Dynamics of specific motor skills and abilities in 14-15 years old volleyball players. *Research in Kinesiology*, 42(1), 158-161.
- Петкова, Л., & Квартирникова, М. (1985). Тестове за оценяване на физическата дееспособност. [Tests for evaluating physical capability. In Bulgarian.] София: Медицина и физкултура, (pp.13).

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