

Assessment of technique of tennis players of ten years old

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Purpose: to define the simplest and informative methods of assessment of technique of young tennis players on the basis of the analysis of references and the experience of coaches.

Material & Methods: the following methods were used during the research: analysis and synthesis of references, syntheses of pedagogical experience of coaches.

Results: the processing of information, which is provided in references, allowed defining the most informative techniques of testing of technical preparedness of tennis players of 10 years old.

Conclusions: it is defined that the most informative and suitable techniques of assessment of technical preparedness of tennis players for this age are techniques which include subjective and objective indicators.

Keywords: tennis, assessment of technique, young sportsman.

Introduction

Tennis – is a many-sided game with the set of movements and techniques which improvement is the result of long-term training. Questions of training in technique of playing tennis concern both sportsmen, and coaches. Two problems come up at experts in the course of training: training of a sportsman in ideal technique and criteria of its assessment.

The approach to the elementary education of young tennis players in Ukraine changed essentially last decade. Tennis balls of various diameters (more standard diameter, applied in tennis to adult players) and various degree of rigidity (50% and 75% of pressure of standard) appeared according to the recommendation of the International federation of tennis.

Change of rigidity of a ball leads to change of height of its bounce from the surface of the court, flight speed from a racket to the point of landing, rotation force in various axes, spots of contact with the string surface of a racket. These changes (introduction of “soft” and “big” balls) allow young sportsmen quicker and without additional load of the musculoskeletal system and the muscular system to master technical arsenal of tennis. The International federation of tennis recommends passing to training with standard balls in ten years. Tennis tournaments are also held by standard balls for players older than 10 years in Ukraine and around the world. In this regard a sportsman and a coach have problems, which are connected with the creation of the training process in the changed conditions.

Enough scientific works are devoted to the assessment of various parties of preparedness of tennis players. So, L. P. Sergienko (2013) offers for the evaluation criteria of special physical preparation of tennis players on the basis of the analysis of foreign press. V. V. Mulik, V. S. Loboda (2012) investigated the level of physical and technical preparedness of young tennis

players. Questions of assessment of technique of tennis players were developed by M. Krespo, D. Miley (1998), V. A. Golenko, by A. P. Skorodumova (2005), T. S. Ivanova (2007).

However, offering test programs of assessment of technique, the above-mentioned experts not always considered the level of physical preparedness and the extent of possession of young sportsmen of technical arsenal of tennis.

The purpose of the research:

to define the simplest and informative techniques of assessment of technique of young tennis players on the basis of the analysis of references and experience of coaches.

Material and Methods of the research

The following methods were used during the research: analysis and synthesis of references, synthesis of pedagogical experience of coaches.

Results of the research and their discussion

There is the set of ways and playing styles in modern tennis, each of which, under certain conditions, can be productive. Respectively, the assessment of technique of the game represents certain complexity at stages of the maximum realization of individual opportunities and preservations of achievements. It is necessary for sportsmen of 10 years old, first of all, from opportunity positions to qualitatively master elements of technique and further productively to apply them in the course of the game.

So, T. S. Ivanova [1] offers the tests for the assessment of technique of the player, which are presented in table 1.

The contents of the table show that the assessment of tech-

nique is carried out on subjective and objective indicators. The subjective component demands the involvement of several experts that causes certain difficulties.

The objective component assumes the assessment of each complex by the number of effectively executed shots or serves.

The exercises, which are rather well mastered by them within the academic year, are offered young tennis player for the technique assessment.

The control exercises are grouped in two complexes taking into account the degree of complexity of performance.

The control complex 1 includes volleys and ground strokes on diagonals, and also a serve. The control complex 2 includes volleys and ground strokes on lines, overheads.

It is recommended to begin tests with the performance of exercises of the complex 1. Testing should be held in conditions, identical to examinees, it is desirable with the same rather qualified sparring-partner able to throw a ball unmistakably. When performing each task the young sportsman has to send a ball to the platform.

The assessment of ground strokes and with volley is carried out on the number of the executed in a row of faultless shots: 15 and more – is «excellent», 10–14 is «good», and 7–9 is «satisfactory».

The assessment of serves is carried out on the accuracy hit rate (10 attempts) to the set field of a serve: 10 – «excellent», 9–8 – «good», 7 – «satisfactory». The assessment of shots over the head is carried out on the number of unmistakably executed shots from 10 attempts: 10 – «excellent», 9–8 – «good», 7 – «satisfactory».

Grip at a serve – universal for children age up to 10 years old, universal, continental – up to 12 years old is estimated expertly on the five-point system (taking into account relevant requirements). At backhand – is universal or continental up to 12 years old, continental – after 12 years old. The strike zone at ground strokes of 20–30 sm ahead of a trunk and is not lower than the level of a knee.

Control complex 1: the partner and the examinee carry out volleys, from left to left, from right to right, the partner carries out the volley, the examinee plays with a bounce from left to left, from right to right, the partner carries out ground strokes, the examinee plays with volley: from left to left, from right to right, the partner and the examinee carry out ground strokes: from left to left, from right to right, the examinee carries out 10 serves to the first field of serve and to the second field of serve.

Control complex 2: the partner and the examinee carry out volleys from left to right, from right to left, the partner carries out volleys, the examinee plays ground strokes from left to right, from right to left, the partner carries out ground strokes tested plays from volley: from left to right from right to left, the partner and the examinee carry out ground strokes: from left to right, from right to left, tested carries out 10 overheads in the left corner and in the right corner.

It is offered to estimate the technique on visual perception in the program of sports preparation for children's and youth sports schools and specialized schools of the Olympic reserve [4] for children and young people, as well as in "The textbook of the advanced coach" [2].

The technique of the player is estimated by experts in points and has a subjective character in the program for children's and youth sports schools and specialized schools of the Olympic reserve for children and young people. Assessments are entered in the table similar to the offered by T. S. Ivanova, however there is no objective component of estimation that puts the assessment of technique of the young player into dependence on the degree of professionalism and objectivity of the expert.

The test sheets of correction of separate technical elements, which are recommended by authors of "The textbook of the advanced coach" allow not only to estimate the performance of the movement, but also offer recommendations of the expert in elimination of shortcomings of this or that technical action (tab. 2).

Similar test sheets are filled in for each shot.

Thus, the method of assessment of technique, which is offered by M. Krespo and D. Miley [2], comprises the methodical component which will allow the coach to correct technical training of the young sportsman.

The testing is held by precision tests, which have more directed character in the system of estimation developed by the International federation of tennis for assignment of the international tennis number. The short description of tests and the table for entering of results are given below (pic. 1).

The estimation is carried out by the following criteria for the definition of the international tennis number:

1. The assessment of depth of ground stroke from the court including power aspect (on 5 serial ground strokes on the right and at the left);
2. The assessment of depth of volley including power aspect (on 4 serial shots on the right and at the left);
3. The assessment of accuracy of ground strokes on diagonal including power aspect (on 6 serial shots on the right and at the left on diagonal);
4. The serve assessment including power aspect (12 serves, on 3 serves to each target platform of serve);
5. Mobility assessment measures, time which is necessary for the player to lift 5 tennis balls and to return them to everyone to a special zone.

We developed the following option of testing of technique of tennis players on the basis of personal experience and experience of the coaches working with sportsmen of 10-year old.

It is offered to estimate the technique of tennis players by the number of hits at the square of 60x60 sm outlined on game wall. Ground strokes are carried out from distance of 5 m, volley – from distance of 1,2 m.

Table 1
Assessment of technique of tennis players (according to T. S. Ivanova)

Action	Swing-up	Approach to a ball	Removal of a racket to a ball	Moment of a shot	Finish of a shot	Exit from a shot	Overall score
I. Ground strokes – in average point: 1. Flat strokes from the backline on the right/at the left: – in average point; – in high point; – in high point inside the court.							
2. Topspin strokes from the backline on the right/at the left: – in average point; – in low point; – in high point; – inside the court with the advance to the net.							
3. Slices from the backline on the right/at the left: – in average point; – in low point; – in high point; – inside the court with the advance to the net.							
4. Drop shots from the backline on the right/at the left							
5. "Lob»: – passing topspin on the right/at the left; – passing slice on the right/at the left.							
II. Volleys: – in average point; – in low point; – in high point; – drop shot.							
III. Overheads: – with the place with volley; – with withdrawal back in jump; – with withdrawal back with a bounce; – with advance a knee forward.							
IV. Serve 1. In 1 square in different zones: – flat; – topspin; – slice.							
2. In the 2nd square in different zones– flat; – topspin; – slice.							

The number of hits in square from 15 shots at ground strokes: 12–15 shots – excellent, 9–12 shots – good, 5–7 shots – satisfactory. Testing is held separately for shots with top spin on the right and at the left.

Shots on the right and at the left in the same square alternate at a game from volley. The assessment of technique is carried out by the following criteria: 26–30 hits – are excellent, 22–26 – is good, 18–22 – are satisfactory.

Serves are estimated by the number of hits from 10 of the first and from 10 second serves, at each of squares of serves. Hit of 34–40 balls is estimated as excellent, 28–34 – is good, 22–28 – is satisfactory.

The testing was held in all above-stated ways for the definition of the most acceptable system of assessment of technique of sportsmen of 10 years old. Sportsmen were engaged in the group of the fifth year of training, each of players had sufficient play experience and national rating in the age group older than 10 years old. The group consisted of sportsmen who study the first year game balls with standard pressure.

The analysis of results of testing showed that the most informative, from the point of view of the received assessments, are T. S. Ivanova's techniques and the technique, which is offered by us.

The technique, which was given by T. S. Ivanova, gives the full

Table 2
Test sheets of correction of a serve

Motor action	Assessment	Evaluation guidelines
Preparation: Constant ritual before a serve Time before a serve Accurate purpose of a serve		
Balance: In start of motion At contact During maintenance		
Swing: Long movement without a delay Action of a hand (throwing movement) Speed of the movement of a hand Acceleration of a racket Transfer of body weight Use of the whole body for creation of power Turn of shoulders Bending of knees At contact head up Pronation of a hand Shot to a ball up		
Control: Percentage ratio of the first serves. Percentage ratio of the second serves. Depth. Rotation.		
Upcast. Constancy. Height (too low or too high) The movement of the throwing hand in relation to body: – here and there – forward or back		
General type: As the attacking weapon. Variety of a serve. Disguise. Wide underspin. Flat serve. Change of a grip		
Summery		

objective assessment of technique for this age what results of testing in the experimental group testify to. The received estimates well give in to comparison and are informative for sportsmen of 10-years old.

The testing technique, which was developed by us, also showed the objectivity and informational content of assessment of technique of sportsmen of this age. In comparison with the technique, which was offered by T. S. Ivanova, its convenience consists in simplicity of carrying out. The dependence of assessment on the level of preparedness and accuracy of game of sparring is excluded. The test is very convenient for monthly assessment of technique of tennis players of 10-years old.

Testing for obtaining the international tennis number gives the wide information on technical preparedness of the player and precision characteristics of its realization. However the existence of zone of doubling of points in this system significantly influences estimates of players. Sufficient length and force of

shots and also high forward rotation of ball are necessary for receiving appreciation. Especially it concerns a serve performance. This test is difficult for ten-year-old sportsmen and qualitatively only leaders of national rating at this age coped with it. Informational content of testing for assessment of technique of players is very high, but it is possible to apply it to only well prepared players using balls with standard pressure.

The assessment of technique, which was offered by M. Kre spo and D. Miley [2], and in the program for children's and youth sports schools and specialized schools of the Olympic reserve [5] for children and young people has a subjective character as tables are filled in on the basis of visual perception of the coach or the expert, and in view of lack of any standards, depend on the technique image by the specific expert. At the same time the above-stated types of testing are necessary for the coach for more accurate fixing of features of technique of the specific player and definition of the direction of the further improvement of his technique. The testing op-

International Tennis Number — On Court Assessment

what's your number?



International Tennis Number

This ITN Assessment was conducted in accordance with the guidelines set forth in the Official ITN Assessment Guide. I hereby agree to its authenticity.

Signed by behalf of the player:

Signed by the Assessor:

Name: _____ Date of Birth: _____ Sex: M F
 Assessor: _____ Date: _____ Venue: _____

GS Depth			Volley Depth			GS Accuracy			Serve		
Stroke	#	Score	Stroke	#	Score	Stroke	#	Score	Stroke	#	Score
Forehand	1		Forehand DL	1		Forehand DL	1		1st Box Wide	1	
Backhand	2		Backhand	2		Backhand DL	2		1st Box Wide	2	
Forehand	3		Forehand	3		Forehand DL	3		1st Box Wide	3	
Backhand	4		Backhand	4		Backhand DL	4		1st Box Middle	4	
Forehand	5		Forehand	5		Forehand DL	5		1st Box Middle	5	
Backhand	6		Backhand	6		Backhand DL	6		1st Box Middle	6	
Forehand	7		Forehand	7		Forehand CC	7		2nd Box Middle	7	
Backhand	8		Backhand	8		Backhand CC	8		2nd Box Middle	8	
Forehand	9		Sub Total			Forehand CC	9		2nd Box Middle	9	
Backhand	10		Consistency			Backhand CC	10		2nd Box Wide	10	
Sub Total			Volley Depth Total			Forehand CC	11		2nd Box Wide	11	
Consistency						Backhand CC	12		2nd Box Wide	12	
GS Depth Total						Sub Total			Sub Total		
						Consistency			Consistency		
						GS Accuracy Total			Serve Total		

Mobility Table	
Time	Score

T	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	
S	1	2	3	4	5	6	7	8	9	10	11	12	12	12	13	14	15	16	18	19	21	26	32	39	45	61	76
Score (F)	57-79	80-108	109-140	141-171	172-205	206-230	231-258	259-303	304-344	345-430																	
Score (M)	75-104	105-139	140-175	176-209	210-244	245-268	269-293	294-337	338-362	363-430																	
ITN	ITN 10	ITN 9	ITN 8	ITN 7	ITN 6	ITN 5	ITN 4	ITN 3	ITN 2	ITN 1																	

Circle players ITN level after completing the Assessment.

Fig. 1. The system of assessment, which is developed by the International federation of tennis for the assignment of the international tennis number [6]

tion, which was offered by M. Krespo and D. Miley [2] is more informative, than offered in the program for children's and youth sports schools and specialized schools of the Olympic reserve for children and young people [5].

Conclusions

The analysis of the methods of assessment of technique of young tennis players demonstrates that they are equivalent

not all of them and are suitable for concrete age. In our opinion, the technique of T. S. Ivanova and the technique which was offered by us, which are assuming both subjective and objective assessment of elements of technique, are the most informative and accepted for children of 10 years old.

Prospects of further researches. The research and the assessment of technique of young tennis players with the use of computer technologies.

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