

TECHNICAL TRAINING JUNIOR TENNIS PLAYERS AGED 8–9 AS A CONSTITUENT PART OF SUCCESSFUL PLAYING ACTIVITY

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<https://doi.org/10.29038/2220-7481-2017-04-94-98>

Abstract

This article is dedicated to the issue of determining technical aptitude for playing activities in junior tennis players during the beginner stage of their sports training. *The research aim* is to determine the aptitude of junior tennis players aged 8–9 to proceed to the «green» level as the result of technical aptitude and competitive activities analysis. *Work Results.* The level of training junior tennis players has been analyzed, which consists of 3 levels (red, orange and green), each of them having their specifics in playing activities. This promotes gradual training junior tennis players for technical and tactical training. The average indices of technical training junior tennis players are determined and the correlation between technical training and competitive activity in junior tennis players are analyzed. The analysis of the correlation between the results of technical training and competitive activity has confirmed that all the criteria of technical training have the positive correlation which indicates the direct proportionality in the determined factors. *Conclusions.* As a result of our experimental research, based on the analysis of technical training and competitive activity of the junior tennis players, we have determined that the junior tennis players aged between 8 and 9 are ready to proceed to the «green» level of tennis.

Key words: tennis, technical training, competitive activity, junior tennis players.

Инна Городинська, Юрій Грабовський, Світлана Степанюк, Олег Кузнецов. Технічна підготовленість юних тенісистів 8–9 років як складова частина успішності ведення ігрових дій. У статті розкрито проблему перевірки технічної готовності юних тенісистів до ведення ігрових дій на перших етапах спортивної підготовки. *Мета дослідження* – визначити готовність юних тенісистів 8–9 років до переходу на «зелений» рівень на підставі аналізу результатів технічної підготовленості та змагальної діяльності. *Результати роботи.* Під час дослідження проаналізовано ступеневу підготовку юних тенісистів, що складається з трьох рівнів (червоний, помаранчевий і зелений), кожен із яких має свої особливості ведення ігрових дій, що дає змогу поступово підготувати спортсменів до техніко-тактичних дій в тенісі. Визначено середні показники технічної підготовленості юних тенісистів, проаналізовано взаємозв'язок між їхніми технічною підготовленістю й змагальною діяльністю. Аналіз кореляційного зв'язку результатів технічної підготовленості зі змагальною діяльністю засвідчив, що всі показники технічної підготовленості мають позитивний кореляційний зв'язок, що вказує на прямо пропорційні відносини факторів, що визначались. *Висновки.* Отже, проведене експериментальне дослідження на підставі аналізу технічної підготовленості та змагальної діяльності юних тенісистів, визначило готовність юних спортсменів 8–9 років до переходу на «зелений» рівень гри в теніс.

Ключові слова: теніс, технічна підготовленість, змагальна діяльність, юні тенісисти.

Инна Городинская, Юрий Грабовский, Светлана Степанюк, Олег Кузнецов. Техническая подготовленность юных теннисистов 8–9 лет как составляющая успешности ведения игровых действий. В статье исследуется проблема проверки технической готовности юных теннисистов к ведению игровых действий на первых этапах спортивной подготовки. *Цель исследования* – определить готовность юных теннисистов 8–9 лет к переходу на «зеленый» уровень на основании анализа результатов технической подготовленности и соревновательной деятельности. *Результаты работы.* В статье проанализированы этапы подготовки юных теннисистов (красный, оранжевый, зеленый), каждый из которых имеет свои особенности технико-тактических действий, что позволяет постепенно подготовить юных спортсменов к ведению технико-тактических действий. Определяются средние показатели технической подготовленности юных теннисистов, анализируется взаимосвязь между технической подготовленностью и соревновательной деятельностью. Анализ корреляционной связи результатов технической подготовленности с соревновательной деятельностью показал, что все показатели технической подготовленности имеют положительную корреляционную связь, что указывает на прямо пропорциональные отношения определяющих факторов. *Выводы.* Проведенное экспериментальное исследование на основании анализа технической подготовленности и соревновательной деятельности юных теннисистов определяет готовность юных спортсменов 8–9 лет к переходу на «зеленый» уровень игры в теннис.

Ключевые слова: теннис, техническая подготовленность, соревновательная деятельность, юные теннисисты.

Introduction. Tennis is one of the complicated and high-pitched sports games of the contemporary world [4]. High proficiency actions of a tennis player require exclusive standards from all aspects of their training.

The issue of athletes' sports training was investigated by such scientists as L. Volkov, L. Matveev, V. Platonov, A. Ter-Ovanesian and others in various training periods. The issue of advanced technical training was researched by S. Belits-Geyman, V. Guba, M. Ibrahimova, O. Lazarchuk, S. Sav, S. Trachuk and others during different training periods

Technical training in tennis is one of the most important parts of physical training at the initial stage of exercise, as this is the formation period for fundamental technical and tactical activities for achieving top scores in professional sports.

V. Platonov's definition of technical training is the degree of athletes' prowess in the system of movements, certain distinguishing characteristics of this kind of sport which are aimed at achieving top scores in professional sports. Due to the scientist's conclusion, the more methods and actions have sportsmen mastered the better they are ready for solving complex tactic problems arising in the competition process [3].

Tennis techniques represent the vast array of complex coordination methods which is the reason for juniors not really to be interested in this long lasting process. That is why during the first years of training the issue of mastering tennis techniques by young athletes arises taking into account their age specifications and the level of prowess without neglecting the competition results [5].

In this case, the junior tennis players can achieve a higher level of game proficiency in the initial stages of exercise, which develops the successful enhancement of their skills in further training.

A very significant change in the rules for physical training of junior tennis players has been introduced by International Tennis Federation since 2012 for 10-year-olds, which prohibits the use of standard tennis balls at the competitions and implies reconsideration for the introduction of professional systems at running the competition for junior tennis players [1].

This allows 6–10-year-old children to get accustomed to the game methods in contemporary tennis earlier, in particular, to form the necessary fundamental technical and tactical performance, to acquire vital movement skills, to develop tactical thinking and as a result to commence their playing activity.

Consequently, technical and tactical training the junior tennis players is of significant importance right from the start of their exercise and the issue of controlling the junior tennis players' technical aptitude for competitive activities is as relevant as ever.

The research aim is to determine the aptitude of the junior tennis players aged 8–9 to proceed to the «green» level as the result of technical aptitude and competitive activities analysis.

The research methods are as follows: the theoretical analysis of academic and methodic literature concerning the issue; the educational observations; the pedagogical testing; the methods of mathematical statistics.

Results and Discussion. The analysis of written sources indicated that sportsmen's training is the process of reasonable incorporation of the whole range of factors allowing to influence the development of the sportsmen directly and to provide the necessary level of their aptitude for sporting achievements. The composite system of sportsmen training includes the sports drills, sports competitions and the utilization of factors raising effectiveness of training and competitive activities.

The training objective in tennis is the athletes' physical development, mastering the system of technical and tactical skills in tennis, achieving strong sports performance. Sports performance consists of learning and performing according to the classification standard as well as competing in multiple categories in Tennis Federation of Ukraine (2, 1, A), and competing in ITF, ATP, WTA, Fed Cup, Davis Cup, Grand Slam tournament [5].

The analysis of the programme "Tennis for Children Under 10" is significant for the formation of the learning and training process in beginners' group. This programme includes three levels of a tennis game in colour codes, which are red, orange and green, with making use of mini tennis equipment as well as playing activities [6].

The specifications for each level in tennis are shown in table 1.

Table 1

Characteristics, Objectives and Playing Activities Administering for Beginner Tennis Players

	Red Level (Ages 5–8)	Orange Level (Ages 8–10)	Green Level (Ages 9–10)
Stages Characteristics	Initial stage of learning when the basic knowledge, skills and methods of tennis game are learned	Second stage when the basic skills and different elements of technical and tactical training are being formed	Preparation stage before transition to training with standard yellow ball
Training Objectives	Formation of interest in tennis, promotion of physical development, learning the basics of technical skills	Further development of technical and tactical skills, formation of play activities on bigger tennis courts with quicker balls	Reinforcing of the technical and tactical skills acquired before on standard tennis courts, utilisation of an array of technical skills in varied game situations
Introduction to Game Play	Tie-breaks with score 7–10 or short tie-breaks. Matches of 3 tie-breaks scoring to 7. Matches limited to 15 minutes	Matches of 3 tie-breaks or a short set of up to 4 games	Matches of 1 short set up to 4 games or 3 short sets

Therefore, the level training of the junior tennis players consists of 3 levels (red, orange, green), each one of them having their own peculiarities in terms of play activities and this allows to gradually prepare the children for technical and tactical activities and increase their interest in tennis.

To determine the purpose of the research we conducted a series of pedagogical tests. Experimental work was performed in junior sports tennis school in Kherson Region, organisation FST “Ukraine” in October-December 2016. We tested 8 students in the beginners group of the second year of training. 2. They had sports training 3 times a week and competed in May-October every week on Saturdays or Sundays, and 1 or 2 times a month during winter season. Starting from November 2016 they competed in sets up to 4 on standard tennis court performing three serves of any type in every square.

To determine the junior players’ level of preparation we suggested the complex of movement test such as: exactness of cut with a forehand or backhand bound ball in the determined square, the exactness of serve, holding the ball in the game. We identified the average level of technical skills in the junior tennis players by means of mathematical statistic methods (table 2).

Table 2

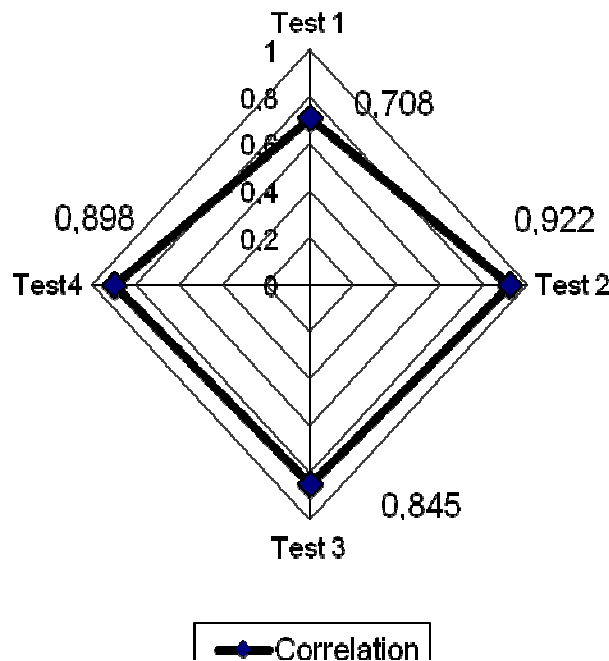
**The Average Level of Basic Technical Elements in Technical Training
Junior Tennis Players Aged 8–9**

Test	Test 1 Approach From Forehand in the Determined Square (Times)	Test 2 Approach From Backhand in the Determined Square (Times)	Test 3 Serve 10 Shots (Times)	Test 4 Holding the Ball with a Sparring Partner (Coach) (Times)
Mathematical Index				
X	6.5	6.125	4.25	12.875
M	1.41	1.24	1.035	2.29

Hereby, analyzing the results of the test performed, we observe that serving 10 times overhand is characterized by the least effective index and equals $4,25 \pm 1,035$. This can be linked to the fact that this technical element was introduced to children in September 2016 and the learning process was aimed at learning the effective technique, not the serve accuracy. The index for holding the ball with a sparring partner test is $12,875 \pm 2,29$ and is rather high which shows that students can hold the ball in the court for a prolonged period, so they will be able to perform game activities.

To determine the correlation between technical training and general activity we arranged technical training and competitive activity indices. Analyzing three test-training competitions where all junior tennis players performed, we determined the position of each player at every competition. The competition was held according to the mixed system, firstly in groups, then in the play-off. The champion received the protocol for the competition stating his victory which motivated him for further sports achievement.

The correlation between technical training and competitive activity of the junior tennis players was determined with the help of Spearman index of rank correlation (pic.1). The results of correlation are presented in picture 1.



Pic. 1. Correlation (According to Spearman) in the Results of Technical Training and Competitive Activity

Analysing the correlation (according to Spearman) in the results of technical training and competitive activity, we confirmed that all the criteria of technical training have the positive correlation which indicates the direct proportionality in the determined factors.

We determined the level of competence before the transition to the «green» level for junior tennis players according to the summarised rating of «Champion Index» (table 3).

Table 3

Summarised Ranking Index of Basic Technical Elements in Technical Training and Competitive Activity for Junior Tennis Players Aged 8–9

Test and Ranks	Junior Tennis Players							
	1	2	3	4	5	6	7	8
General Rank of Technical Training	4	1	2	6	5	3	8	7
General Rank of Competitive Activity	4	3	1	5	6	2	8	7
«Champion Index»	8	4	3	11	11	5	16	14

According to this index the junior tennis players № 2, № 3 have confirmed the top results in the group; № 1, № 4, № 5, № 6 are ready for the transition to the next level according to their indices of technical training and competitive activity; № 7, № 8 players require more substantial training and individual approach in order to proceed to the «green» level at the end of the school year.

The summarized ranking index of basic technical elements in technical training and competitive activity for the junior tennis players aged 8–9 has confirmed that 6 out of 8 junior tennis players are ready to proceed to the next, «green», level, which equals 70 %.

Conclusion and Prospects of Further Research. As a result of our experimental research, based on the analysis of technical training and competitive activity of the junior tennis players, we have determined that the junior tennis players aged between 8 and 9 are ready to proceed to the «green» level of tennis.

The research undertaken by our group does not solve all the aspects of the given issue. We can foresee further research prospects in a more detailed approach to determining the junior tennis players' aptitude in the form of standard movement tests and their assessment criteria.

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Стаття надійшла до редакції 20.10.2017 р.