METHODOLOGY OF TEACHING AND TRAINING TENNIS IN CLASSES OF PHYSICAL EDUCATION AT HIGHER SCHOOLS

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Abstract
This paper presents a methodology of tennis teaching and training for university students. Its actuality is based on the fact that the implementation of physical education as a process at higher schools runs in certain limiting frameworks of curriculum time. The university students are a part of Bulgarian population that is able to multiply to the greatest extent the knowledge of sports as a way to overcome the risk factors of human life, i.e. hypodynamics (inactiveness), mental stress, deviations from the health-friendly manner of living, etc. The objective of this research is to improve the system of physical education at higher school – tennis training (elective sport) based on the development of and experimenting with a methodology of beginner teaching and training for the achievement of solid knowledge of tennis at “Neophyte Rilski” Southwest University. The simple was defined with 1st and 2nd year university students that have chosen the classes of elective sport (tennis), the research was carried out in the course of two academic years. Within the week cycle the study and training classes present in one class of 90 minutes.

Keywords: university students, training classes, kinesiology experiment, motor tests, fragmented method, complete method, slow-motion performance method, motor quality, assessment methodology

INTRODUCTION
Modern tennis is an emotional sports game full of highly varied and complex motions of a sophisticated technique. This game is a demonstration of a complex of qualities – strength, fastness, endurance and dexterity. Tennis is one of the most difficult sports. This is due to the fully artificial movements in the game technique. These are new movements that can not be formed based on some past experience. Moreover, the technical skills (shots) in tennis are numerous and vary significantly as per performance technique. The presence of a racquet between the hand and the ball requires a very precise and exquisite coordination of movements. Even the slightest wince of the arm results in a significant increase of the racquet amplitude. Therefore tennis training and improvement require a long purposeful and consistent period of time.

Tennis is extremely popular. One can hardly mention any other types of sports that cover such a broad age and gender area of application. Tennis can be practiced by all the age groups of both genders. Training can begin from the age of 6-7 years, as well as at a later stage of human life. The purpose of physical education at higher schools is to support the implementation of the complete study process, to ensure a high level of the students’ future professional activities. It satisfies not only the public needs, but agrees also with the interests of every individual student. Tennis as a sports game is practiced in almost all the higher schools in the Republic of Bulgaria and abroad. It is a very popular sport among university students. Tennis training of students at “Neophyte Rilski” Southwest University has been conducted since year 1991. Each year some 400 students register for tennis classes, they are distributed in 18 groups 25 students each. After inquiries and discussion held among students a conclusion was drawn that the students register for such classes with the purpose to learn how to play tennis and to improve their physical abilities (Ivanov & Tomov, 2010).

The fact that students show a high interest for tennis in the classes of physical education

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Penchev, 1998), makes it necessary to extend and improve the traditional methodological notions of its teaching as an instrument and method of new knowledge and of the development of the trainees’ motive capacity.

After studying a large number of literature sources and syllabuses of higher school, as well as based on the observations on the classes at higher schools we have come to the conclusion that there is a shortage of methodologies of teaching and training complied with the curriculum of physical education (elective sport – tennis) at higher schools. Such a methodology is required also by the circumstance that the tennis classes at higher schools are frequently conducted by coaches that do not have the necessary qualifications to teach tennis, such a methodology would also be used by students willing to practice tennis individually.

This paper presents a part of a methodology developed by us for teaching and training students during the study process in the classes of physical education and sports at higher schools.

The objective of this research is to improve the system of physical education at higher school – tennis training (elective sport) based on the development of and experimenting with a methodology of beginner teaching and training for the achievement of solid knowledge of tennis at “Neophyte Rilski” Southwest University.

Research contingent: 1st and 2nd year university students that have chosen the classes of elective sport (tennis), the research was carried out in the course of two academic years.

METHODOLOGY

The tasks, instruments and purpose of the methodology we propose take into consideration the trainees’ age peculiarities and mental and physical qualities. This methodology was approbated at “Neophyte Rilski” Southwest University and serves as a basis for the development of the dissertation work of senior lecturer Dimitar Tomov.

The performance of all shots and implementation of the technical and tactical combinations are in close relation with the physical ability, intellectual development and inherited characteristics of the person. We proceed from the position that these characteristics do not exist in isolation from one another and should be developed in a complex, consistently and all the year round. The means for the development of the physical qualities meet not only the functional and motive capabilities of the persons researched but also the age dynamics of development of the individual qualities. During the beginner tennis training it is necessary to work for the complex development of the speed abilities, general body strength, dexterity, flexibility and general endurance.

Within the week cycle the study and training classes present in one class of 90 minutes. The proportion between the criteria studied for predetermination and technical preparation is 30%: 70%. In every training class 60 – 70% of the general time is devoted to studying the tennis technique.

The training classes for solving the tasks of the general physical preparation are of a complex character.

Exercises of field-and-track athletics are used, and most of all exercises from the Dr. J. Hoehn’s test, which is very popular throughout Europe and in our country, too. It covers the following 8 exercises:

- Quadruple standing jump; Throwing a 2 kg medicine ball;
- fan /starts from a single point into various directions/;
- compasses /quick changes of play posture for forehands and backhands/;
- sitting-lying exercises;
- long distance running /800 m for women and 1000 m for men /
- “Kangaroo” jumps.

As mentioned above, 30% of the experimental time in the course of the two years is devoted to 36 hours of general and special physical preparation, and the remaining 70%, i.e. 84 hours – to technical preparation.

The physical preparation test is performed twice at the end of the spring semester and in the course of the two academic years.

Means and methods of consistency in technique learning /two-year training/

The share of the technical preparation in the course of the first two years at the stage of preliminary sports preparation is 70% of the total time of classes. Based on our preliminary research we used the following stuff for the technical preparation of the experimental group:

First year of training

Complex and simultaneous studies of shots, not in succession shot by shot, up to its thorough mastering. During the first year the shot complex covers: flat and slightly lifted forehands and backhands with a bounced ball, flat serves and mid-air forehands and backhands.

Studying of the shot technique with a bounced ball: demonstrating and explaining the movements of shots with a bounced ball. Succession of learning: first the flat shots, after that the drop shots and at the end the lifted shots.

Learning shots with the segmented method in phases and with a complete method. Means: imitation exercises by phases and of the whole movement. Learning shots with a partner, with a trainer, at the training wall and with other apparatuses and instruments. Correcting mistakes, correcting movements through competitive and special preparation means with the
help of a trainer and independently.

**Recommended individual practical training activities**

* playing in pairs; playing in a straight line and diagonally within a triangle, within a figure of 8, combined with flat, drop and lifted shots;
* shots on bounced ball at the training wall, with the task to correct the mistakes at the performance of shots and for intensity;
* performance of series of 20, 30 to 200 shots of every type at the training wall. Performance of series of 20 to 40 shots in pairs with a partner or a trainer;
* playing in pairs with a partner for precision and provision upon performance of shots on a bounced ball;
* practice games in singles with tasks: combining three and more shots from the baseline of the court, as well as combining the shots with a bounced ball with mid-air shots.

Learning the **mid-air shots technique** – demonstration and explanation of the mid-air forehands and backhands. Learning the mid-air shots through a fragmented method, complete method and slow-motion performance method. The means and methods of learning of the mid-air shots technique: imitation exercises, mid-air shots on a tossed ball, with a partner in pairs, with the help of machine, at the training wall and with other shots and appliances. Learning the high, medium and low mid-air forehands and backhands with a teacher and with a sparring-partner.

**Recommended individual practical training activities**

* performance of mid-air shots and in series of 20, 30 to 100 shots at the training wall and with a partner in pairs;
* repeating the movements of the individual elements of mid-air shots with the purpose to correct the mistakes made, at the training walls – independently, with a partner, with a machine, on a frame with an attached ball, etc.;
* performance of mid-air shots after pass at the court and practice games;
* practice games as an instrument for the achievement of confidence and precision of performance of mid-air shots;
* learning the technique of serving and return; demonstration and explanation of movements for serving (posture, racquet grip, compact stroke, from below upwards or a complete stroke, ball tossing, the shot, loading of weight, the concluding phase); studying the movements by parts (phases). Means: imitation exercises, exercises for mastering the ball toss, performance of shots with a racquet behind the back from the serve line and from the baseline.

Practice at the training wall, in pairs at the court. **Overhead shots** – demonstrating and explaining the exercise through the fragmented method, complete method and with a slow-motion demonstration;

* exercises for learning the lifted and drop shots technique. Correcting the mistakes in learning the serve with the overhead shots. Taking into consideration the time at the performance of overhead shots – means: learning the **volley shots technique**; defensive volleys; offensive volleys; **learning the landing shot technique**; exercises for performance of landing shots; service return; leaning the technique of service return with machine aided servicing.

**Essential means used for training of serves and returns**

A particular number of serves can be performed under established conditions for a legal service. The conditions are gradually aggravated:

* A 80x80 cm square is drawn in the angle of the serve box and the hits are counted out of a preliminarily determined number of serves. At first it is served only to one of the angles, and then the angles are alternated in succession – one serve to the right-hand angle, the next to the left-hand. When the tennis players acquire a certain confidence and precision there will be proceeded to exercises of serve with coming to the net;
* after performing the serve the player has to run to the net as fast as possible and touch it;
* in the angle of the service box a basket of tennis balls is put and a competition is held for 10-30 serves;
* a serve is performed from distances of 4 – 6 meters from the wall. The ball is to meet the ground at approx. 1 m ahead of wall. From there it bounces to the wall, and from the wall – over the player’s head. The player hits the ball again at 1 m ahead of the wall and this way he/she is able to repeat the shot many times. This way he/she learns at the same time how to perform overhead shots (a complex exercise). It can be learnt with extreme perseverance.

**Returns**

As mentioned the serve is a primary shot, but the return is not of a smaller importance. Undoubtedly the return is the most difficult shot. Paradoxically it is the least practiced shot. It is almost impossible, especially with the modern understanding of offensive tennis played on grass, wood or some other fast surface, for a player to win if he/she has not mastered the return shot. Only with a perfect return one can break the opposite player’s serve and come to a win. Therefore it is necessary to pay attention to returns with the very first steps in tennis.

We have endeavored to make the students
learn at the very beginning to stand in a way that would let them as a last resort return the opponent’s serve at the moment when the ball is in its highest position after bouncing. The players should not be allowed to stand too far and to return the ball just before it hits the ground for the second time. The trainer should teach the trainees to make one or two steps ahead after a void serve by their opponent, as the second serve, particularly of beginners, is significantly weaker and shorter than the first one and therefore it is needed to come out to meet it. This effect is frequently not taken into consideration and even experienced players remain in the back. At the second serve the players can move some 2 – 2,5 meters to the net. We have endeavored to make the trainees note that they should shorten as much as possible the stroke at return in order to be able to meet on time the ball in front of them. When teaching the return shot we use the following exercises:

* the player serves in succession to the right- and left-hand angle of the service box, and the other player returns the ball to the determined place;

* the player after performing the serve comes to the net and the other strives to “throw across” him/her.

**Second year of training**

Further learning and assimilation of performance of the complex of the shots learnt throughout the first year. Careful and focused correction of mistakes through the training means. Learning the technique of lifted and drop shots with a bounced ball, mid-air drop shots, overhead shot after movement and from a static position. A special attention is paid to the serve and return of the serve /retour/. Practical training activities with the major tactical requirements of the single game /movement within the court, tactical peculiarities of performance of different shots, tactical tasks, etc./

**Tests for the assessment of the stuff taught throughout the first year of technical preparation**

* Test for the assessment of the start shot (serve)

The trainer is on the other side at the baseline and serves with a racquet 5 balls to the left and to the right, respectively for a forehand and for a backhand flat volley. The grading scale is the same as for the shots with a bounced ball. A grade is given for the performance of mid-air forehands and resp. for backhands.

* Test for the assessment of the mid-air shots

The player performs 10 serves – 5 in the right-hand and after that 5 in the left-hand serve box. The assessment is carried out in the same manner as in the two preceding tests. The grade for the performance of a serve is the average of all the points gathered for the performance of the 10 serves. The final grade is the average of the sum of grades for a flat forehand, flat backhand, mid-air forehand, mid-air backhand and the average grade for the performance of the serve.

**Tests for the assessment of the stuff learnt during the second year of technical preparation**

* Test for the assessment of the mid-air forehand and backhand:

The players assessed stand in a row behind the court baseline. The trainer stands at the serve box from the court opposite site. Each player performs 10 volleys in consequence. The first volley is performed outside the serve box, the second – at 3 m from the net, and each of the players performs 5 approaches of 2 volleys. At the performance of backhand volleys the ball...
is directed to the box in the left-hand angle of the players’ court, and of forehand volleys – to the box in the right-hand angle of the court, the first volley is directed to the squares drawn in the backside, the forehand volley – to the right-hand side of the opposite field, and the backhand volley – to the left-hand angle of the opposite field, and the second volleys – to squares drawn with the same sizes to the left and right of the net in the external angles of the serve boxes. 

• Serve

Every player performs 10 serves – 5 to the left and 5 to the right. 1.5 m / 1.5 m squares are drawn in the serve boxes in the left and right angle. The player directs the ball to the left- and right-hand square of the corresponding serve box in consequence.

CONCLUSION

The beginner tennis player’s absence of motive experience impedes the chance to reveal and forecast their potential sports abilities. More than one periods of not less than 2 years are needed to outline the differences in dynamics of growth of results from the indicator characterizing the motive and psycho-motor abilities, technical and competitive skills.

The need for the preparation and implementation of a methodology and tennis training syllabus for students at higher schools and especially at “Neophyte Rilski” Southwest University is in direct relation to the study process efficiency. The methodology of training and assessment of the students’ basic tennis shots proposed by us is a prerequisite for a more qualitative and efficient training process in the classes of physical education and sports.

REFERENCES


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МЕТОДИКА ЗА ОБУЧУВАЊЕ И ТРЕНИНГ ПО ТЕНИС ВО НАСТАВАТА ПО ФИЗИЧКО ВОСПИТУВАЊЕ НА ВИСОКОТО ОБРАЗОВАЊЕ

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(Преходно соодржание)

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Антрект

Во трудот е презентирана методиката за обучување и тренинг во наставата по физичко образование на студентите. Нејзината актуелност, произлегува од тоа што физичкото воспитание како процес во уловите на Универзитетот се реализира во
одредени ограничени временски рамки на програмата. Студентите се оној дел на населението кој во најголема мера може да го мултиплицира сознанието за спортот како начин за совладување на ризичните фактори во животот на човекот, како што се хиподинамичноста (инактивноста), психичките стресови, нарушувањето на здравиот начин на живот и слично. Целата на истражувањето беше да се усовршува системот на физичкото воспитување во високото образование – обучувањето на тенисот (слободно избиран спорт) врз основа на експериментално применување на методика за почетно обучување и тренинг за усвојување на трајни знаења за тенис во условите на Југозападниот универзитет „Неофит Рилски“. Примерокот на испитанците беше дефиниран со студенти и студентки од прва и втора година кои избрале часови по тенис во таа една од две учебни години. Наставниот процес во тој период се спроведуваше со еден час во неделата од 90 минути.

Ключни зборови: сбундувачки, тренажна наседава, кинезиолошки експеримен, моторни тестови, аналитичка метода, синтетичка метода, метода на забавена изведба, моторните знаења, метода на оценување

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