



## APPLIED GAMES IN THE TENNIS TRAINING OF STUDENTS FROM SOFIA UNIVERSITY "ST. KLEMENT OHRIDSKI"

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### ABSTRACT

Achieving a good level of technical fitness in tennis requires the performance of a large volume of work, repeated execution of the various technical elements, and the constructive amount of physical exertion is quite high. All this leads to a decrease in interest in the exercises performed and in the tennis training. We assume that the application of various applied games in tennis training activities at the University will diversify the training process and contribute to increasing its effectiveness.

**The purpose** of the research is to establish the place of sports preparatory games in the tennis education of SU students.

**Tasks of the research:** 1. To reveal the possibilities for developing the motor qualities of the students and technical skills and habits, through the use of games in tennis training activities; 2. To study the role of special preparatory games in the teaching-training process of tennis at the University; 3. To establish the role of special preparatory games for the development of technical skills and habits of students participating in tennis training.

**The subject** of research is the teaching and training work in tennis of the students of SU, the object of research is the applied games, and the subject is the students from the tennis study groups.

**The following methods** were used in the research: study of literary sources, theoretical analysis, field testing, mathematical-statistical methods.

**Key words:** tennis, games, motor skills, technical skills and habits.

### INTRODUCTION

Tennis is a dynamic sport requiring the development of a good level of basic motor skills. (3) characterizes it, "as a sport that simultaneously requires speed, strength, endurance, flexibility and agility". Some modern scientific research provides information on the relationship between the development of basic and special motor qualities, and the effectiveness in teaching the basic technical elements. "Motor qualities are the basis of the development of motor skills, which are the basis of the technique of the game" (7).

According to Dimitrov, Belomuzheva-Dimitrova, "Tennis requires agility and resourcefulness of the players, due to the need to quickly adapt the body to the speed,

trajectory, flight, and return of the ball passed by the opponent. Observation, a high degree of concentration, a good reaction, decisiveness and coordination are developed (2).

The main direction in our work as tennis teachers at Sofia University "St. Kliment Ohridski", is the effort to improve the quality and effectiveness of education with students. Above all, to master basic technical skills and habits, the application of which will allow them to successfully play certain game situations, to be worthy opponents and to enjoy the game (9). In addition, our tennis classes should contribute to the improvement of health and personal growth of the students. "Sport has always been and will remain an activity through which an individual acquires valuable character qualities and skills of mind, spirit and body that push him to development, improvement, elevation and elevation" (8).

Creating a lasting need for tennis lessons after university is a primary goal of our tennis

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education. An essential role for the achievement of this goal is the development of appropriate science-based training programs and methodologies and their implementation in practice. Their implementation should contribute to the development of motor skills at the required level, which in turn would contribute to mastering the technical elements of the game. The training methodology involves repeated execution of movements with approximately the same spatial and temporal characteristics, which is a large volume of work. For this, in our opinion, it is necessary to diversify the educational and training process with the application of applied games and competitive exercises. Mobile games in training have a positive effect on the development of basic motor skills, physical fitness and health of tennis players. (5)

Experimentation of a training program containing applied games of students from tennis training groups at Sofia University would allow us to improve our work by making relevant scientific generalizations to increase the effectiveness of training activities.

**Purpose of the study:** to reveal the possibilities of increasing the effectiveness of the tennis training of the students of Sofia University by including the sports-preparatory games.

**To achieve our goal, we set the following tasks:**

1. To study the dynamics of development of motor skills of students, when using games in tennis training activities;
2. To establish the contributions of the special-preparatory games for the development of the technical skills and habits of students participating in tennis training.
3. To study the role of special preparatory games in the teaching-training process of tennis at the University.

**The subject** of research is the study and training work in tennis of the students from the study groups in tennis from the University of Sofia.

**The object** of research is the special preparatory games applicable in tennis training.

**The subjects** are the students of the tennis study groups.

The research used a **complex methodology**, including the following methods: field testing; ascertainment experiment; pedagogical

experiment; surveillance; mathematical and statistical methods.

## METHODS AND ORGANIZATION OF THE RESEARCH

In the pedagogical experiment participated 32 students from the tennis study groups of the SU, divided into a control and an experimental group. In the control group training was conducted according to conventional methods, while in the experimental group applied and competitive games were used. Both groups were composed of novice tennis players. Different games were selected to develop the basic motor qualities and the technique of performing the basic technical elements. Duration of the study was within two semesters, during the academic year 2022-2023.

The test battery included the following tests: motor qualities - explosive strength of the lower limbs - standing long jump, speed of movement 30 m run, endurance - adapted endurance test from the Eurofit test battery, specific speed of movement on the tennis court, called "fan".

Performance tests of technical elements:

Forehand on a bounced ball from the baseline - 16 strokes are performed, 4 series of 4. 4 forehands are played consecutively from the baseline, with the student starting from the left corner of the tennis court, where the first stroke is, passes through the middle mark, moves right along the baseline to the right corner of the court where the fourth stroke is and returns to the starting position for the next set;

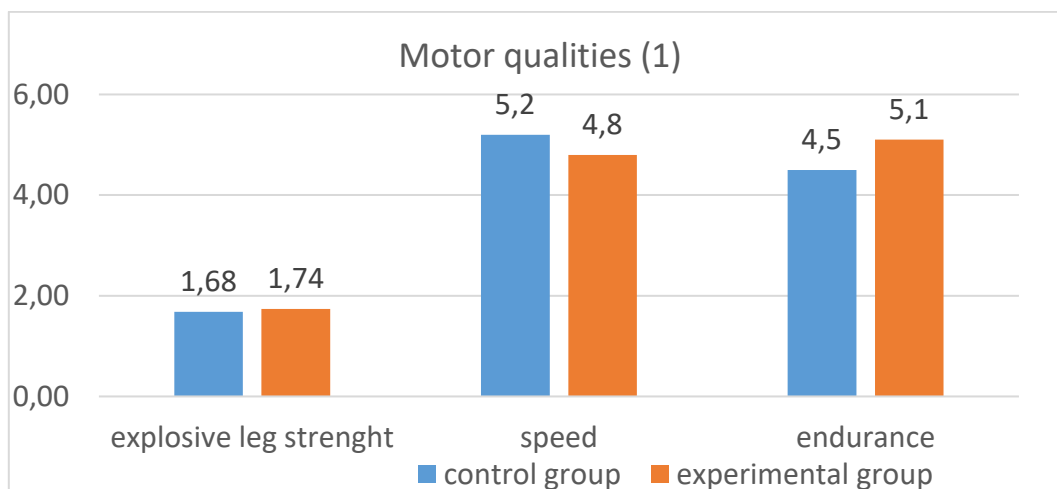
Backhand on a bounced ball from the baseline - 16 strokes are performed, 4 series of 4. 4 backhands are played consecutively from the baseline, with the student starting from the right corner of the tennis court, where the first stroke is, passes through the middle mark, moves left along the baseline to the left corner of the court where the fourth stroke is and returns to the starting position for the next set;

Serve stroke – execution of 20 serve strokes, 10 in the draw court and 10 in the advantage court.

## RESULTS ANALYSIS

The applied field tests were carried out in the conditions in which the teaching and training process in tennis takes place at the University. Figure 1 presents the results of lower extremity explosive power, movement speed, and endurance. The established differences in the development of motor skills and the mastering of technical elements (**Figure 1, 2 and 3**) for the

control and experimental groups are significant ( $P > 95\%$ ).



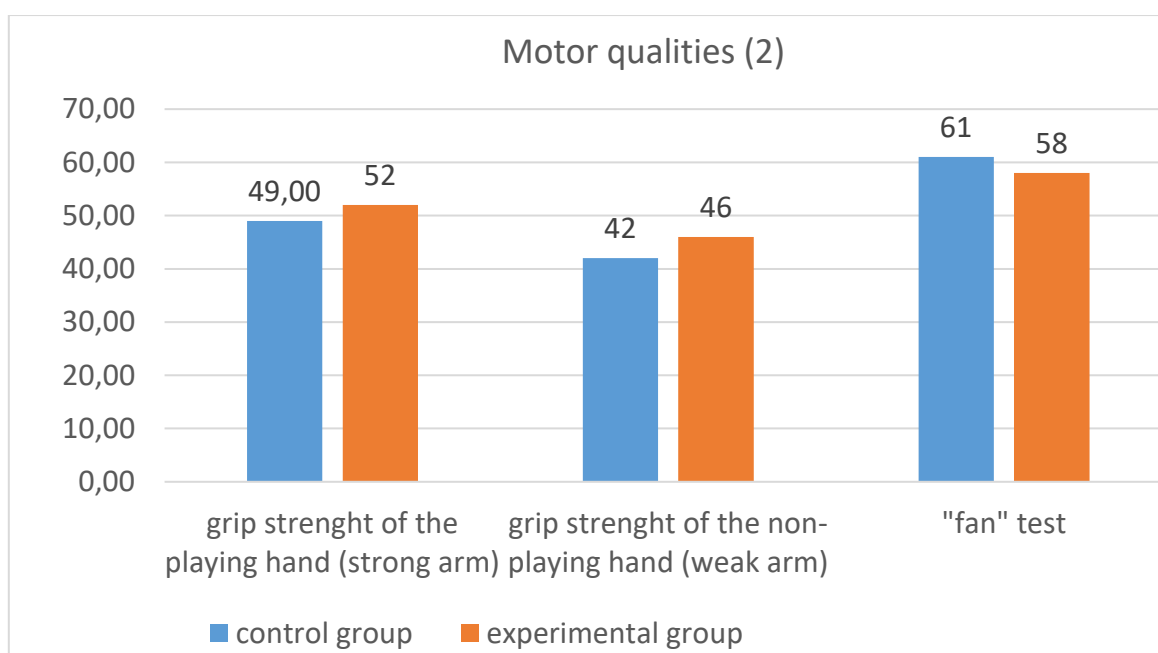
**Figure 1.** Motor qualities- explosive leg strength, speed, endurance.

Explosive leg strength is essential to successfully playing the various tennis positions. Dynamic strength helps to get to the ball in a timely manner, which is an important factor for successful play. The obtained results (**Figure 1**) in the study of SU students according to this indicator are  $x=168$  cm in the control group and  $x=1.74$  cm in the experimental group, which is a 6 cm better result.

The development of the motor quality speed and its manifestations are of crucial importance for playing the majority of game situations. The average research achievement of 30 m smooth

running (**Figure1**) of students from the control group is  $x=5.2$  sec., and for students from the experimental group  $x=4.8$  sec. This is 0.4 seconds better than the experimental group.

Endurance is the body's ability to exercise and remain active for a long period of time. (6). A good level of development of this motor quality is important for the game of tennis, since the duration of tennis matches, both for competitors and for amateurs, is quite long. The results of the adapted endurance test from the Eurofit test battery were 4.5 levels for the control group and 5.1 for the experimental group, which is 0.6 levels better.



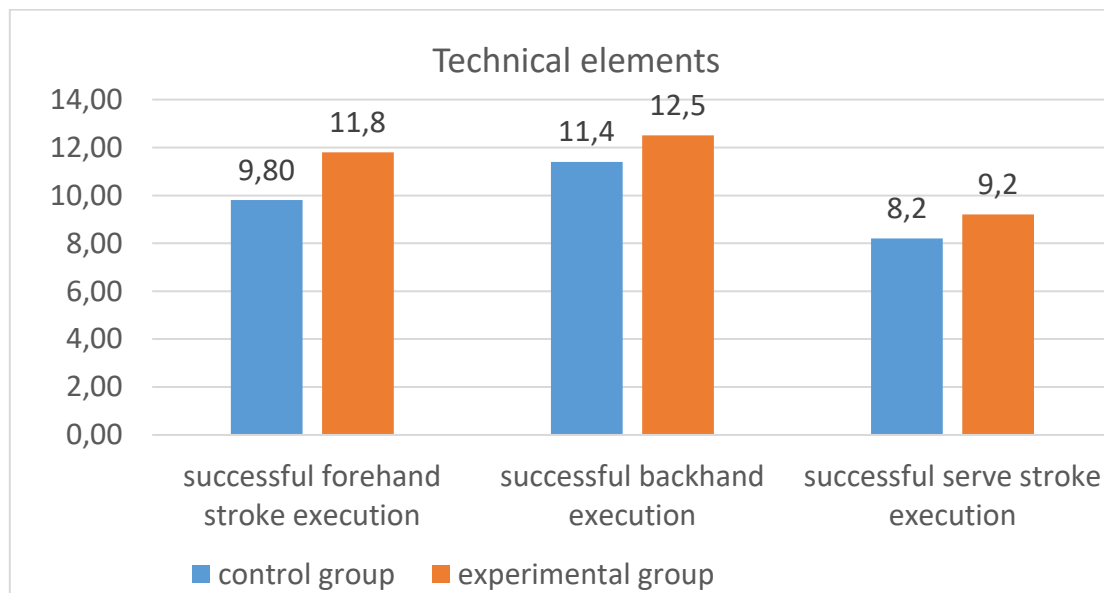
**Figure 2.** Motor qualities- grip strength, specific speed of movement

The mastery and effective performance of the main technical elements of the game depends on the good development of muscle strength. According to (4), the activities performed by the tennis player during a tennis match are characterized by a dynamic nature, including a variety of movements and actions to hit the ball with sufficient force and accuracy. Grip strength plays an important role in the accurate and precise execution of most of the basic shots, such as bounce shots and aerial shots.

The results obtained by us for this indicator (**Figure 2**) of the playing hand of the students studied by us are  $x=49$  kg for the control group and  $x=52$  kg for the experimental group, and respectively  $x=42$  kg and  $x=46$  kg for the non-

playing (control) group. Comparing the results, we found better results with 3 kg for the strong arm and 4 kg for the weak arm of the experimental group.

The fan test shows the specific speed of movement on the tennis court, which is of utmost importance for winning each point. "Tennis is a dynamic, fast and unpredictable game played in a limited and well-defined space. In the game of tennis, the speed with which the player can move to reach the ball hit by the opponent plays an increasingly important role." (1). The results achieved (**Figure 2**) in this test are 61 seconds for the students from the control group, which is 3 seconds weaker result than that of the experimental one.



**Figure 3.** Results of the performed tests for the execution of the main technical elements.

**Figure 3** presents the results of the performed tests for the execution of the main technical elements. When performing a forehand, differences of 2 units in favor of the experimental group were found in both groups. The average values are 11.8 successful strokes, and in the control group there are 9.8 strokes. This, in our opinion, is the advantage of teaching tennis beginners through the application of the game method, where they immediately start playing.

When performing a backhand on a bounced ball - backhand, the average values are 12.5 strokes in the group trained by the application of applied games and 11.4 in the group trained by the traditional methodology. The obtained values are significantly higher than the values obtained with the forehand. This, in our opinion,

is due to the fact that tennis beginners learn this shot more easily, since most of them perform it with two hands.

In the execution of the service, the average values obtained in the control group were 8.2 strokes, and in the experimental group 9.2, which is a difference of only 1 stroke. The results for both groups show a relatively good success rate based on the coordination complexity of this technical element.

## DISCUSSION

The results of this study show that the development of the basic motor qualities and the mastery of the basic elements of the game technique in the students of the experimental group are at higher levels than those of their counterparts in the control group. The

application of applied games helps to increase the density of the training activities and helps the beginning tennis players to start playing the game at an earlier stage of the training.

Their content allows to develop the basic and specific motor qualities, as well as the basics of the technique of the game, without applying only the same exercises, which lead to a decrease in the interest and motivation of the students to play tennis. Diversification of the training process has a positive effect on mastering the basic elements of the technique of the game and allows the students to practice tennis outside the University, which means that they develop a need for physical exercises and sports.

### CONCLUSIONS AND RECOMMENDATIONS

The results and analysis of our studies show that the application of applied games has a positive effect on the development of motor skills of students.

Special preparatory games help the faster acquisition of technical skills and habits of students participating in tennis training.

The tennis program should be updated by including the experimental applied games, which will diversify and improve the effectiveness of the teaching and training process in tennis at the University.

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