

# SITUATIONAL TESTS IN TENNIS FOR PLAYERS IN U-12 AGE CATEGORY (10-12 YEAR OLDS)

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*Professional paper*

## **Abstract**

*Top-quality results in sports today can only be achieved by athletes who are selected at the right age, who are very talented and well prepared. Diagnostic procedures in sports are carried out with the goal of determining initial state of an athlete, evaluation of accomplished effects in certain stages of training process in sports and planning and organizing further stages of training process. This age category of tennis players (10-12 years old) marks the basic stage of training process, with the goal for tennis players to fully master technique of basic shots, and by that way to be in a position to have tennis fundamentals for the start of specialized tennis practice and to have a good foundation to continue their tennis development. Influenced by opinion that for this age the basic goal is that players master technique of basic shots, we defined a solution for designing measuring instruments through experimental work with two tennis players who are among the top 4 on the state ranking list for their age category. Suggested tests are: Test forehand 12, Test backhand 12, Test forehand – backhand 12, Test service 12. Presented tests for evaluating the acquisition of elements related to basic shot technique in tennis to eventual designing should go through stages of data collecting on larger sample of tested athletes. After data processing, it is possible to determine metrical characteristics of the tests.*

**Key words:** *Forehand, backhand, service, stages of sports development, diagnostic procedures, specialized training, training process.*

## **INTRODUCTION**

Tennis is a poly-structural sports activity with an acyclic type of movement. Tennis is entertaining and good for companionship. It helps players to develop their sense of competitive responsibility and to express their own personality. It is very effective for building a healthy and athletically developed person.

Top-quality results in sports today can only be achieved by athletes who are selected at the right age, who are very talented and well prepared. If training process is organized within "coach – player" system, the goal of this interaction is that an athlete, influenced by leadership role of a coach, is transformed from one state into a newly created, final or transitive state, which ensures higher level of sports achievement. The whole work within training process presents an experiment which is continuous and which never ends (Malacko, J., Radjo, I, 2004).

Diagnostic procedures in sports are carried out with the goal of determining initial state of an athlete, evaluation of accomplished effects in certain stages of training process in sports and planning and organizing further stages of training process. In the world of tennis there have been many studies, researchers who were

active in measuring wide range of motor abilities, and it is overall belief that without a quality conditioning it is not possible to play quality tennis.

However, it is the intention of this study to point out priorities in work with young tennis players at very sensitive age (10 to 12). This age category of tennis players (10-12 year olds) marks the basic stage of a training process, with the goal for tennis players to fully master technique of basic shots, and by that way to be in a position to have tennis fundamentals for the start of specialized tennis practice and to have a good foundation to continue their tennis development. Level of mastering techniques of basic shots in tennis can be objectified only by designing situational tests, measuring instruments, so that results after tests can give a picture of the state of technique.

Influenced by opinion that for this age the basic goal is that players master technique of basic shots, we defined a solution for designing measuring instruments through experimental work with two tennis players who are among the top 4 on the state ranking list for their age category.

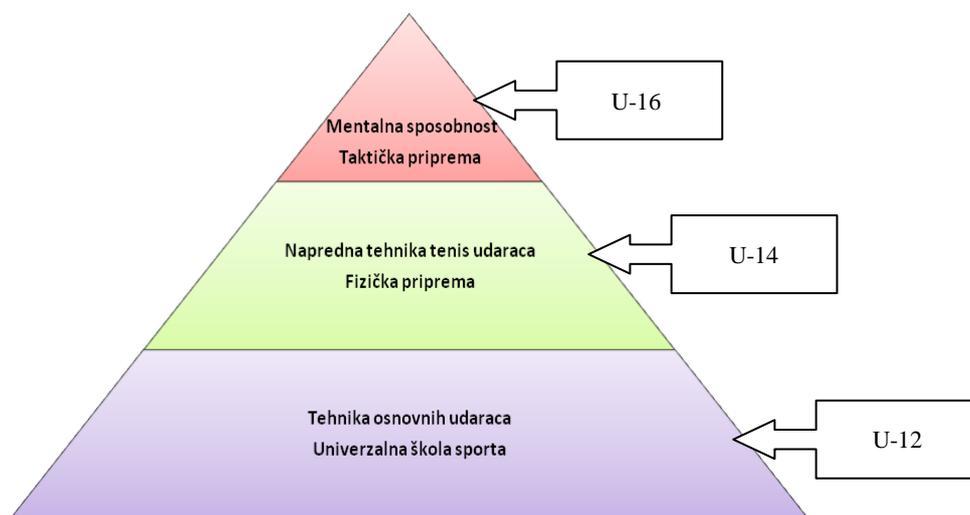
## STAGES OF SPORTS DEVELOPMENT

Success in every field of life usually comes as a result of planned hard work. It is the same situation in sports. In sports, training is a process of repeating, work that improves potential to achieve optimal performance (Bompa, T. 2000). Very often, sports programs for young athletes imitate programs of well known top-quality athletes to single detail, without evaluating to which extent such programs can satisfy interests of young athletes.

Since in this study we design measuring instruments for 10 to 12 year old tennis players, it is necessary to know characteristics of this age category as well as to respect

principles of long-term planning and approach to training process for tennis players.

In picture 1, one can see that for this age category it is necessary to take into account that work on tennis training, which sets primary goal on mastering technique of basic tennis shots, is based on quality versatile development of a young athlete. Development of fundamental skills such as running, jumping, throwing, catching, dropping, rolling is realized in Universal sports school. Technique of basic tennis shots as well as versatile development in Universal sports school present a basic concept in the work with U-12 tennis players (10-12 year olds).



Picture 1

Respecting the facts presented in picture 1, it is obvious that this age (10-12 year olds) presents basis for further specialization, whether to continue tennis development or thanks to high quality program of Universal sports school, there is a possibility of further specialization, interest and development of individual talent in other sports disciplines.

Defining male and female tennis players in terms of their tennis development and assessing their eventual high-quality achievement takes place in the next stage of tennis development (12-14 years old) when with the help of comprehensive analysis besides the level of technique, tactical, conditioning (Chu, D. 1995) and then psychological factors are also taken into

account as capacities for assessing potential achievement.

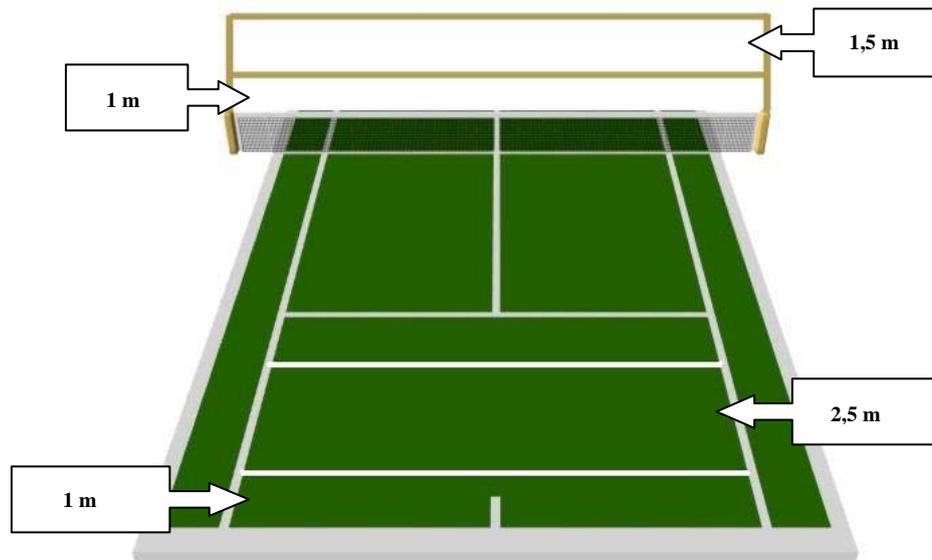
Success in tennis is shaped by many elements, but by respecting characteristics of 10 to 12 year-olds and gradualness in developing tennis capacity, it is our intention to design measuring instruments which would determine situational accuracy resulting from values of acquired technique of basic tennis shots. We emphasize here that the tests are designed for clay-court tennis matches and therefore can not be used under the same criteria for faster surfaces.

## DESCRIPTION OF TESTS FOR U-12 TENNIS PLAYERS

### Test forehand 12

Test is performed by players competing in U-12 age category.

- Coach's position: Central point on the baseline
- Player's starting position: 1 – 1.5 m behind the central point on the baseline
- Player's accuracy space:
  - a) vertically set rectangular window, set 1 m above the top edge of the net. Rectangle height is 1.5 m. Sides of rectangular window are made of nylon rope which does not distract a player, while on the other hand it is visible enough for line judges to accurately see passage of tennis balls through and past the window.
  - b) horizontally set rectangular window, set on the ground. Bottom side of rectangle (closer to the baseline) is set 1 m away from it, and top side (more distant from the baseline) is 3.5 m inside the court parallelly with the bottom side. The same rectangle is set on both sides of the court (picture 1).
- Number of tennis balls: 60 balls – 4 rounds, the first round includes 20 balls, the second and third 15 balls each, and the fourth round 10 balls.
- Coach's strokes: Coach strikes 5 balls in a row which player has to return, and then player has 5 seconds of rest, the same is repeated 3 more times. After 20 balls, player has 20 seconds of rest before the next round. The second round and the third round each include 15 balls, with 5 seconds of rest after 5 balls, and 20 seconds of rest between the rounds. The last round includes 10 balls with 5 seconds of rest after 5 strokes.
- Rotation of the ball thrown by a coach is spin, and direction is through the middle of the court into player's forehand side. Rotation (spin) and distance of stroke is determined by a criterion of ball's passage through vertical window and by its bounce in horizontal window that is set on player's side of the court. Player is ready to strike the ball on the position of 1 – 1.5 m behind the baseline. Pace of a stroke within 5 consecutive strokes is similar to the one during a real tennis match.
- Task execution: Player takes the basic tennis stance waiting for coach's stroke. Coach performs forehand spin from the baseline in a way that the ball has to pass through vertical window and fall into horizontal space. Only the ball that meets criterion of passage through set windows counts for a player. It is recommended for players of this age category to have semi-western or more rarely western forehand grip. Using forehand spin, player returns the ball on coach's side, and it has to pass through both windows. Player has a free choice to strike the ball into any side of the court. After 5 strokes, player has a 5 second rest period. Between the rounds, 4 rounds (the first round 20 balls, the second and third 15 balls each, and the fourth 10 balls) player has a 20 second rest period.
- Evaluation: Ball that passes through vertical window and falls into horizontal, including the window's boundaries is worth 1 point (1), and ball that doesn't meet these criteria is considered to be unsuccessful attempt (0).
- Practice: Player is not allowed to practice.



Picture 2

### Test backhand 12

Test is performed by players of U-12 age category (10-12 year olds).

- Coach's position, player's starting position, accuracy space, number of rounds, number of balls in rounds and rallies, as well as frequency and length of rest are all the same as for FOREHAND 12 test.
- Task execution: Player returns coach's strike using backhand. For this age it is recommended that players use two-handed backhand technique, but the same rules are for the players using one-handed backhand. For two-handed backhand technique it is recommended that grip made by left hand (for right-handed players), hand closer to the head of a tennis racquet is semi-western, while grip made by right hand is continental.
- Evaluation: the same as for Forehand 12 test.
- Practice: Player is not allowed to practice.

### Test forehand – backhand 12

Test is performed by players of U-12 age category (10-12 year olds).

- Coach's position, player's starting position, accuracy space, number of rounds, number of balls in rounds and rallies, as well as frequency and length of rest are all the same as for FOREHAND 12 and BACKHAND 12 tests.
- Task execution: Player returns coach's strikes using forehand and backhand shot by turns in a way that balls pass through both criteria windows, vertical (spin) and horizontal (distance of stroke) set on the coach's side (picture 2).
- Number of tennis balls: 60 balls – 4 rounds, the first round includes 20 balls, the second and third 15 balls each, and the fourth round 10 balls.
- Coach's strokes: Coach strikes 5 consecutive balls, by turns into player's forehand and backhand side. In the first round, the first rally and the third rally both start and end with forehand stroke. The second and fourth both start and end with backhand stroke.

After 20 balls, player has 20 seconds of rest before the next round.

The second round and the third round each include 15 balls, and after every 5 balls there is a 5 second rest, while between the rounds there is a pause which lasts 20 seconds. The first and third rally (5 balls each) of the second round both start with forehand stroke, while the second rally starts with backhand stroke. The first and third rally (5 balls each) of the third round both start and end with backhand stroke, while the second rally starts and ends with forehand stroke.

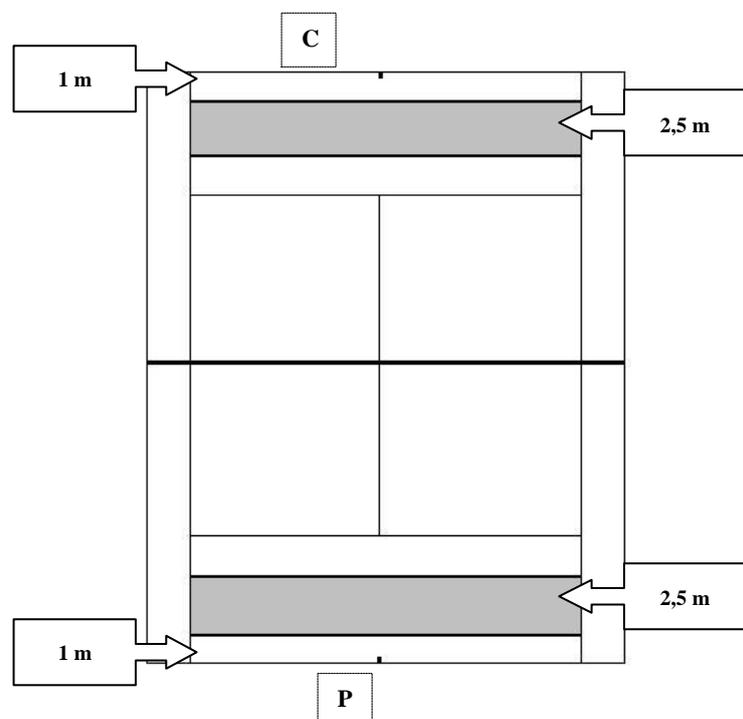
The last round includes 10 balls and a 5 second rest period after 5 strikes. The first rally starts and ends with forehand stroke, while the second starts and ends with backhand stroke.

- Task execution: Player takes the basic tennis stance waiting for coach's stroke. Coach performs forehand spin from the baseline in a way that the ball has to pass through vertical window and fall in horizontal space. Only the ball that meets criterion of passage through set windows counts for a player. It is recommended for players of

this age category to have semi-western or more rarely western forehand grip. Coach performs forehand and backhand strokes by turns into player's side of the court, in a way that player moves on both sides as little as possible. Using forehand spin or backhand spin player returns the ball into coach's side of the court. Player can choose the side of the court, but the ball has to pass through both windows.

After 5 strokes, player has a 5 second rest period. Between the rounds, 4 rounds (the first round 20 balls, the second and third 15 balls each, and the fourth 10 balls) player has a 20 second rest period.

- Evaluation: Ball that passes through vertical window and falls into horizontal, including the window's boundaries is worth 1 point (1), and ball that doesn't meet these criteria is considered to be unsuccessful attempt (0).
- Practice: Player is not allowed to practice.



Picture 3

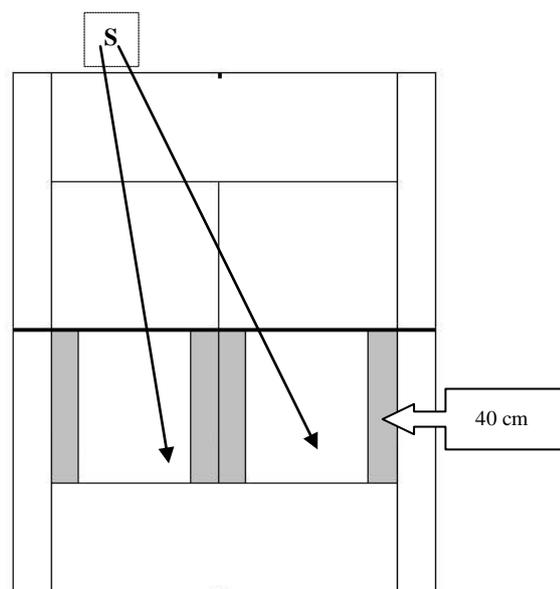
## Test service 12

Test is performed by players of U-12 age category.

- Player's position: space alongside the baseline from where it is allowed to serve, serve position is 0.5 m from the line which separates the baseline on two equal parts.
- Accuracy space: space 40 cm inside longitudinal lines of the service box (picture 3).
- Number of balls: 64 balls – 4 rounds with 16 serves, within one round (16 balls) there are 4 series (each includes 4 serves) by turns on the side of deuce and advantage. Within the series of 4 serves, 2 balls are served into forehand side, and 2 into backhand side (for right-handed players).
- Task execution: Player serves the first and third series (second serve) by

starting from the side of deuce in a way that two balls are served into forehand side, and two balls are served into backhand side (for right-handed players). The second and fourth series (4 serves each) are served into the side of advantage. Two balls are served into forehand side, and two into backhand side. After 16 serves (one round) player has a 20 second rest period.

- Evaluation: Ball that hits accuracy space or its boundaries is registered as a score (2) two points. Ball that missed accuracy space, but fell into the service box is registered as a score (1) one point. Balls that missed both bounded area and service box are registered as a miss (0) zero points.
- Practice: Player is not allowed to have a serve practice attempt.



Picture 4

## CONCLUSION

Situation during test procedures is not as stressful as in most cases during a tennis match, but accuracy resulting from acquired technique is necessary for a player to add tactical, conditioning, and finally mental or psychological qualities to his or her own tennis capacity.

Evaluating player's accuracy by basic technique elements (forehand, backhand strokes and

serve) in designed tests is performed in a way that the influence of conditioning preparation is irrelevant. Players have enough time between the tasks for rest, and movement of a player in these tasks is reduced to a maximum degree.

Presented tests for evaluating the acquisition of elements related to basic shot technique in tennis to eventual design should go through stages of collecting data on larger sample of

tested athletes. After data processing, it is possible to determine metrical characteristics of tests.

Even before its final design, tests can be valuable to coaches for analyzing the effects of their own work, and to remove weak spots in player's technique by possible corrections to

training process. We recommend for tennis coaches, and especially for parents of young tennis players to respect gradualness in development of a tennis player (pyramid, picture 1) and to ensure that players, in every stage of their tennis development, have privilege to improve their abilities by playing the game of tennis.

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## SITUACIJSKI TESTOVI U TENISU ZA UZRASNU KATEGORIJU DO 12 GODINA

*Stručni rad*

### Sažetak

Vrhunske sportske rezultate danas u sportu mogu postići samo sportisti koji su pravovremeno selekcionirani, izuzetno daroviti i maksimalno pripremljeni. Dijagnostički postupci u sportu provode se s ciljem utvrđivanja početnog stanja sportaša, vrednovanja postignutih efekata u pojedinim ciklusima sportske pripreme te radi planiranja i programiranja daljeg toka trenajnog procesa. Ovaj uzrast tenisera (10 – 12 godina) karakterizira osnovni stadij treninga, sa ciljem da teniseri u potpunosti ovladaju tehnikom osnovnih udaraca i da se na taj način steknu pretpostavke za dalji teniski razvoj i temelj za početak specijalizirajućeg treninga tenisera. Vođeni mišlju da je u ovom uzrastu osnovni cilj da igrači svladaju tehniku osnovnih udaraca, rješenje za konstrukciju mjernih instrumenata definirali smo ekperimentalnim radom sa dvoje tenisera koji su u svojoj uzrasnoj kategoriji među 4 najbolje plasirana na državnoj rang listi. Predloženi testovi su: Test forhand 12, Test backhand 12, Test forhand – backhand 12, Test service 12. Prezentirani testovi za procjenu usvojenosti nivoa elemenata tehnike osnovnih udaraca u tenisu do konačne konstrukcije trebaju proći fazu prikupljanja podataka na većem uzorku ispitanika, a nakon obrade podataka moguće je određivanje metrijskih karakteristika testova.

**Ključne riječi:** Forhand, backhand, service, faze sportskog razvoja

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