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**THE EVOLUTION OF TECHNICAL CHARACTERISTICS OF  
SERVE IN FIELD TENNIS**

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*Abstract*

The permanent modernization of the training process and of high performance official competitions represents a serious challenge for the whole body of specialists and technicians who enhance their efforts and professional qualities with a view to reevaluate the whole performance tennis methodology at a superior level. These distinct preoccupations focus in the direction of technical modernization of athletic and psychical preparation and also in the direction of a tactic strategy which diversifies continuously. The national and international specialty literature registered the same thing as the practice of high performance game confirm, namely that an important aspect in modern tennis refers to a fully offensive approach in technique and tactics in Singles as regards the winning of a game point. This is precisely the present work to capture the main aspects of modern tennis training as prerequisites for increasing sports performances in competitions and competitions. These aspects were analyzed in the real work with the performance tennis players of Club AS Pitesti, but also from other clubs in the county who have achieved good results at national and international level in almost all age groups in recent years. It has been observed over time that good service can make a difference between players of the same value. This is what we have tried to improve the service of existing athletes at AS Pitesti to achieve the best performance.

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**Keywords:** Tennis, technique, service, features.



## 1. Introduction

Important competitions organized at international level nowadays and also the peculiarly appreciated performance of players on all continents fully demonstrate that tennis has reached an absolute peak level, under the technical-tactic subtlety aspect and also in point of the exceptional athletic and psychological training of players (Schonborn, 1999).

Currently, the imperatives of scientific research form the baseline in the training of performance tennis players at all preparation levels; teams of specialists from all domains-biology, physiology, biochemistry, biomechanics, nutrition, pedagogy, psychology, management as well as other connected domains together with the elite of specialists and technicians from tennis decide in everything an athlete does in training and official competitions (Zancu, 2002).

The strength of these athletes able to restart the cycle: load, adaptation, adjustment, recovery almost every week and through the whole year is considered to be a highly commendable and remarkable issue.

The fundamental condition for every athlete who tries to do performance is his wish to win and to be competitive, idea that can lead the way to becoming a champion in tennis (United States Tennis Association (U.S.T.A.) (2002). *The Serve* (video tape). USA: Ed. Human Kinetics).

These tennis players can offer valuable actions within the game moments having elegance, intelligence, force and ability and their shots are characterized by a great refinement which transform their modern and efficient play into a subject of joy and admiration. That is why the beauty of a tennis match is a delight for both the human eye and human spirit.

## 2. Problem Statement

If you studies the aspects of the tennis service with all its phases, we will be able to correct any mistakes and the tennis player's service will become a weapon in the game. In this paper we analyzed the main features of the tennis service in AS Pitesti club.

The video technology of the main players was analyzed, then each phase of the game was analyzed and analyzed. Thus, he could correct some technical mistakes and improved the service to the main players and players who became a major weapon in superior performance. You do not have to be big and strong and you do not have to have an athletic body to have a strong service. The work force does not come just by hand (Schonborn, 1999).

The role of legs, shoulder rotation, and abdominal muscles are crucial elements in the speed of starting the ball at work (Epuran, Holdevici, & Tonita, 2001).

Those who cannot perform a very first very powerful service have the option to vary the effects of the ball and its position so that the opponent always asks what is next. The worst thing that can be done at work, besides a double mistake, is to use a first predictable and easy "attackable" service. At work, there are basically four kinds of effects that can be printed on the ball - full, kick, slice and topspin - and 3 options for placing the ball in the opponent's hand (Schonborn, 1999).

Of these effects and ways of service, however, we will return to other future articles. By using and varying all these options you will have an advantage in the sense that your opponent will always have to be prepared for anything (Epuran, Holdevici, & Tonita, 2001).

The opponent will not enter into a rhythm and will not be able to create an advantage through a strong return of a predictable service. It is not always necessary for a first-class service. Players who do not have the height, strength and technique needed for a very powerful service have other options. We have to find out what works for each one and improved. You do not have to adapt to tennis, but you have to adapt tennis for you.

### **3. Research Questions**

In this research we went from the following assumptions:

If we correct the main problems of tennis players at work, we will be able to get superior performances in competitions.

If we succeed in realizing a correct fit of the tennis technique at the level of the service, we will create premises for subsequent execution in the competitions..

### **4. Purpose of the Study**

The aim of this research paper is to bring useful information in the improvement of training methods through a more accurate approach of the serve procedures on which a player should insist in modern tennis.

### **5. Research Methods**

The bibliographical study which consists of a set of bibliographical documents which led to a theoretical experience and familiarity with the domain under research.

The research methods were: study of specialty literature, pedagogical observation on the evolution of tennis players, methods that helped us in the context of the work.

Observation as „a technique” of investigation, the intentional contemplation of an object, phenomenon or process. The aim of our observation is to collect concrete data whose scientific analysis would allow us to generalize at the final stage of the paper; hence comes scientific observation which is not “passive view” but an active intellectual process in which the researcher makes the effort to be accurate and objective at the same time even if the observed events are not human behaviours| loaded with subjectivity (Zancu, 2002).

Observation is a research method often used through which we analyzed and recorded the manner in which subjects reacted to the proposed tasks, the way they organized their action (with attention, with impulse), the way they approached the tactics( with confidence, with ease, dominant or dominated), the way they coordinated their actions (calmly, through controlled or precipitated moves, with ability, natural or unnatural execution of the moves), subjective reactions to own behaviour, to own efficiency, to failure or success (Thill, Thomas, & Caja ,1986).

The experiment implies the formulation of a hypothesis we start from and which will be supported or rejected in the end. The experiment is a research method which presupposes an active and conscious participation of researcher over the events, as he selects specific means, methods and evaluation measures for the tennis game (United States Tennis Association (U.S.T.A) (2002). The Serve ( video tape). USA: Ed. Human Kinetics).

The analysis of efficiency; in the instructive-educational process some specialists consider this research method as the method of controlling and evaluating outcomes. Actually, it is the method which studies the relations between schedule and its achievement and provides only the data collected from the comparison activity between the planned and the achieved objectives; nevertheless, it should be expanded over the whole educational process and provide data about subjects' reaction on instructional technology. Within the scope of this method, we used verification after different stages of the experiment, thus collecting a series of data which allowed comparison and evaluation in the final stage.

## 6. Findings

In the tennis game we can mention:

a. the first serve with a specific technique, based on strength and precision, directed towards the most favourable zones for the server, in order to win the point outright or to increase his chances for the next shot of the game. The aim of the first serve is to put the receiver under pressure, making the return of the ball to be very difficult and to place the server in a favourable situation for the next actions. (United States Tennis Association (U.S.T.A.) (2002). *The Serve* (video tape). USA: Ed. Human Kinetics.).

b. the second serve has as a first requirement the avoidance of technical faults and also to initiate pressure upon the opponent which consist of: achievement of a pronounced high curve; sending the ball on the weaker side of the opponent; great speed in hitting and spinning the ball; the risky winning of the serve having all the features of the first since at the second serve, the receiver advances in the service box, forces the server to try an efficient factor in hitting the ball - length; the percentage of winning the second serve must be between 90% – 96 % while from outright point approximately 20% – 40 %.

**Table 01.** Decisive characteristics of the serve

Decisive characteristics	Argumentation
1- Grip	1 – Determines racket and forearm trajectory / action of the wrist
2-Ball tossing	2 - Determines rhythm and trajectory of the racket
3-Racket preparing	3 – Determines ball rhythm and velocity
4-Progressive upward move	4 – Determines ball trajectory
5 – Final hit	5 – Increases ball velocity and protects the body
6 – Stance	6 – Influences balance, precision, and development of the ball velocity

Certainly, this specific technique for any effect has as reference point the direction of hitting the ball to execute the serve (Table 01).

It is to be mentioned that the directioning of the ball for one of the effects of the ball depend on the power and rhythm of the execution. However, in the ATP we meet players who succeed to mask the effect they intend for the ball, taking into consideration that the main indicator of the effect of the serve is the way of tossing the ball. A good example is Pete Sampras' serve, demonstrated in the study made by United States Tennis Association (USTA) presented on the video „High-Performance Tennis; The Serve 2002.

## 7. Conclusion

The ball served diagonally is more often used in the games both at Grand Slam competitions and at inferior levels, in Men's and Women's competitions and in Doubles.

The efficiency of the diagonal serve is much greater than the long-line serve, (approximately 67%) since points are usually scored after a diagonal serve.

Long-line serve is used in a small proportion as compared to the diagonal serve; it is used to surprise the opponent or as a tactic alternative.

The most efficient „stroke” in tennis, ace, is directed diagonally inside the service box, mainly on the short diagonal and rarely down the middle.

We can conclude that, if at the beginning period of tennis, the serve represented only a shot to start the match by a server, today's equivalent of a „kick off”, in football, the serve represents a decisive factor in the development and winning of a tennis game.

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