what tennis research tells us about ... strategy and tactics

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A series of articles on the strategy and tactics of the game that have appeared in sport science publications are summarised below. Coaches interested in obtaining more information from these articles can find them using the relevant references.

Match charting

The paper states that good charting can provide nearly all the answers about the points played during the match. It can pinpoint the strengths and weaknesses of the player's game. Charting can thus lend itself to an in-depth analysis of statistics. It is

recommended that two subdivisions be used – serving and receiving – to enable the player to record the entire match. At the conclusion of the match, the player and the coach may want to review the chart. The information gleaned can be applied to the next practice. The paper



includes an accompanying chart both for serving and receiving players.

Goldstein, B.J. (1976). Chart your tennis matches. *Scholastic Coach*, 50-56.

Winning singles strategy

One of the principles outlined within the paper is that the winner of a tennis match is not always the player with the better strokes. Players should be intelligent enough to use a game plan that capitalizes on their strengths and the opponent's weaknesses. The paper also states that the game strategy should be initiated during the warm up before the match. It is also said that the best strategists are completely objective: they don't underrate the opponents nor overrate their own abilities. Several aspects are highlighted to help counter attack the opponent's strategy: 1. Develop a well-rounded game that will enable you to adjust to the opponent's strategy, 2. Exercise your intelligence and constantly analyse the situation, and 3. Assume good court position at all times. Playing percentage tennis is another tactical option that can be very effective. The paper further includes several comments on variables such as court surface, weather, sun, and competitive attitude and their influence on singles tennis strategy.

Austin, D.A. (1980). Developing an winning singles strategy, *Scholastic Coach*, February, 96-101.

Surface and strategy

The aim of this study was to provide a quantitative comparison of elite players on two vastly different surfaces, at Wimbledon (grass) and at the Australian Open (synthetic). Results showed the following: 1. The serve was more effective on grass although placement was found to be independent of surface, 2. It was found that a greater proportion of returns were made on the synthetic surface. 3. The direction of the returns was found to be generally down the middle with the aim of keeping the ball in play, 4. More winners were made on grass and more errors on the synthetic surface, 5. Playing on grass produced shorter rallies, both in terms of number and duration, 6. On grass, play was skewed towards the net whereas on synthetic it was towards the baseline and the left of the court.

Hughes, M. & Clarke, S. (1995). Surface effect on elite tennis strategy. In T. Reilly, M. Hughes & A. Lees. *Science and Racket Sports.* E & FN Spon. London (272-277).

Attacking strategies in women's tennis

The aggressive margin is a measure defined by the number of winners less errors, as a percentage of the total number of rallies. The intention of this study was to develop and validate a system that would provide for the analysis of critical points and the aggressive margin, and to also examine whether attacking or defensive styles of play were more successful at different stages of the game. Results showed: 1. Elite players analysed, displayed greater attacking strategies at the beginning and end of the games, 2. Their play became more attacking as each match progressed, and 3. There are definite tactical patterns adopted by these players at critical points in each game and each set.

Hughes, M.D. & Tillin, P. (1995). An analysis of the attacking strategies in female elite tennis players at Wimbledon. *Journal of Sports Sciences*, 13, 86.

Time factors and surfaces

In the 1996 season, a slower ball was introduced at Wimbledon and a faster ball was introduced at Roland Garros. Stich, not a clay court specialist, was the runner up at the French Open and two non-seeded players played the Wimbledon men's final. The aim of the study was to determine if the introduction of the new balls had resulted in similar games for men's and women's singles at the two tournaments. Results showed that rallies at Wimbledon were longer with the slower balls and that the ball change at the French Open resulted in an increase in the serve and volley style.

O'Donoghue, P. & Liddle, D. (1998). A notational analysis of time factors of elite men's and ladie's singles tennis on clay and grass surfaces. In T. Reilly, M. Hughes & A. Lees. *Science and Racket Sports II*. E & FN

Spon. London (241-246).

Surface and strategy in women's tennis

The purpose of this study was to investigate whether elite female players win a greater proportion of points on serve and at the net on grass than on clay surfaces. Results confirmed that elite female tennis involves more points being won on serve and at the net on grass than on clay and that there are more baseline rallies on clay. However, since the result of drawing a player into the net on grass is that the opponent has a greater chance of winning the point than at Roland Garros, players did not draw their opponents into the net as much at Wimbledon as they did at the French Open.

O'Donoghue, P. & Liddle, D. (1998). A match analysis of elite tennis strategy for ladies' singles on clay and grass surfaces. In T. Reilly, M. Hughes & A. Lees. *Science and Racket Sports II*. E & FN Spon. London (247-253).

Patterns of play of junior players

The aim of this research was to analyse how the top under 18 British juniors play in terms of winning and losing major international matches. Results showed that: 1. British players made more unforced errors from the baseline, 2. European players played more aggressively and won more points from the baseline, 3. British players played more defensive shots from the baseline and won most points from the baseline and won most points from the net, and 4. British players had a lower percentage of passing shots than players from other countries.

Taylor, M. & Hughes, M. (1998). A comparison of patterns of play between the top under 18 junior tennis players in Britain and in the rest of the world. In T. Reilly, M. Hughes & A. Lees. *Science and Racket Sports II*. E & FN Spon. London (260-264).

Unforced errors and error reduction

The paper states that unforced lateral (side-to-side) errors can be reduced by returning the ball to the location that it is coming from and by following through your stroke in the direction you want the ball to go. Unforced vertical (depth) errors can be reduced by not hitting the ball as

