REVIEW OF MODERN TEACHING METHODS FOR TENNIS

UNIERZYSKI PIOTR (1) & MIGUEL CRESPO (2)

- (1) UNIVERSIDAD DE POZNAN, POLONIA
- (2) RESPONSABLE DE INVESTIGACIÓN, DEPARTAMENTO DE DESARROLLO DE LA FEDERACIÓN INTERNACIONAL DE TENIS

INTRODUCTION

Tennis has been changing a lot during the last 15-20 years but for many decades teaching methods were behind general development of the game. Tennis started to lose the battle to other, especially "new" or more "elite" sports and other leisure activities. One of the reasons was that the traditional method of teaching tennis was focused on a technique or production of the strokes (Crespo 1999) without understanding real character of the game and approach has not been changing for many years. Results of studies undertaken by the ITF showed that, in some, especially more matured tennis countries, tennis appeared "not to be a fun game to learn and play for the vast majority of youngsters interviewed" (ITF, 1998). It is interesting that similar problems occurred in Physical Education in developed countries like e.g. England and concerned some of traditional games (Werner et.al. 1996).

Research showed that children, parents and coaches acknowledged that "games and game-like situations were funnier than technically oriented drills" (Strean, Holt 2000). "Having fun" is the most important motivator for children's involvement in sport (Wankel & Kreisel 1985, Scanlan et.al. 1993,). At the same time "unequal playing time" is identified as one of the main reasons of dropping out from practicing sport games (Pooley,1981). The research undertaken in UK (Bunker & Thorpe 1982) showed that under traditional coaching children were possessing poor decision making capacity, inflexible technique, knew very little about games and were dependent on the coach. A need for alternative, more funny way of practicing was widely identified (Hopkins 1975). Young people expected that the aim of teaching any game should be not only "improving performance" but also Werner et. al. (1996) improving their enjoyment and participation.

Examples of world's best athletes (especially in rackets sports and other ball games) showed that many of them learned tactical and technical skills without a coach, just by playing with peers, learning by doing (try and error), or imitating more successful friends. Stories of young Brazilian footballers or American basketball players showed that learning both tactical and technical skills "by doing" instead of drilling is effective and certainly much more attractive for players. Findings of researches (e.g. Bunker & Thorpe 1982, Thorpe et. al. 1986, Thorpe and Dent 1999), observations of careers of many top tennis players and experience of the most successful coaches gave a base for a new teaching and training philosophy. Under leadership of the International Tennis Federation

major nations formed own systems and used own names but, the modern training methods follow similar philosophy and have many commonalities. We believe that it is worth to investigating. The aim of the paper is to describe these commonalities and find out characteristic points, which make the "new" teaching philosophy so efficient.

COMMON CHARACTERISTICS OF MODERN TEACHING METHODS

I. ADAPTATION TO SPECIFY TO THE GAME OF TENNIS - GAME - BASED - TACTICAL APPROACH TO COACHING

Despite the fact that different nations use different terms (e.g. Action Method, Game – Based Coaching, Tactical Approach, GAG) the commonality is that teaching process takes into consideration the specific character of the game. A major shift in teaching methodology has been the catalyst of structuring the teaching and coaching process with the idea of adapting it to the match situation—game based, and thus emphasising the role of strategy and tactics already in the initial stages of the game (tactical approach to coaching). While the ability to perform a skill effectively is critical to performance, appropriate decisions concerning what to do in the game situation are equally important. Therefore the aim of the Tactical Approach to coaching tennis is to improve the overall game performance of the player combining tactical awareness and skill execution (Crespo and Cooke 1999).

The "new" methodology appeared to be successful not only in tennis but also has found support among physical education practitioners in Europe and the USA (Griffin, et.al.1997; Turner et. al., 2001). Research (McPerson 1991, McPerson and French 1991, Turner 2003) confirmed that because of tactical (and game based) approach tennis players demonstrate better game performance (shot precision and decision making) and have higher level of specific knowledge than players coached according to traditional approach. It is very important to use modified games (Wright et. al. 2005), which engage pupils cognitively; stimulating pupil interest; allowing for more game play; and provide pupils the opportunity to transfer concepts from one game to another. This methodology may be used with players of different skills, from beginner to professionals. Level of technical skills is not a barrier, because (Thorpe 1992) it is possible to have a good game with poor techniques. Because the criteria of success in practice are "wider" (traditionally success = the drill was well performed) it is easier to create positive motivational climate. Bunker & Thorpe (1982) proposed a curriculum, here presented in modification by Holt – (2002), which also became a base for tennis training (fig 1.).

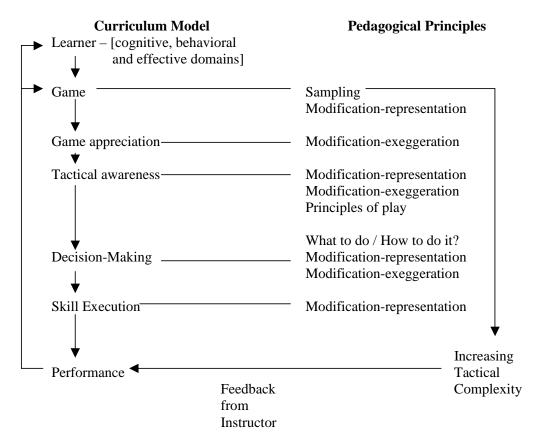


Figure 1. Curriculum model of Game – based approach adapted by Holt (2002). In the game of tennis the methodology is based on assumption that at any given moment the player must be in one of 5 game situations (serving, receiving, playing at the back of their own court with the opponent at the back of their court, approaching or at the net, playing at the back of the court with the opponent approaching or at the net). In each of these situations players perform certain tactics e.g. keep the ball in play, try to move the opponent around, use own strengths etc (Tennant 2004). Players are doing two things at the same time they are in particular game situation and they are in a basic tactical situation. Therefore the goal of coaching process in all modern methods round the world is to teach how "to deal" in these 5 situations. The priority for the players is to understand the game, develop a game sense and learn practical competences e.g. how to attack the net, not just how to hit "nice" shots. Important is that students rally (even if, at the beginning it is a "self rallying", without a net) and, same time learn how to solve different tactical problems. Coaches working according to this methodology first try to develop cognitive skills and later, if necessary, they use technique, closed drills. So the topic/tactical problem of the lesson might be "Setting up to attack by creating space on opponent's court" and creating space using ground strokes (not just working on cross court forehand). In this approach to coaching the classical Analytic Methods (the strokes were broken into parts) became less important.

The priority of tactics over technique does not mean that coaches must not work on shots – better technique gives a player more tactical options but it was found out that technique taught globally, in certain tactical context and with the use of adapted size of the court was not only more attractive but also more efficient.

II. HOLISTIC APPROACH TO COACHING

When dealing with players it is important to recognise that it is more important to get the player to learn the skill and be able to perform it in the right context rather than to simply teach the technique.

Modern tennis training takes into account the importance of tennis as a whole, a holistic approach to coaching, and the principle of integration vs. isolation. The relevance of a holistic view of tennis coaching is gaining more and more recognition worldwide and is promoted by major tennis associations. Terms like "integrated, total or complex" tennis training are very close to each other are more common among coaches of all levels. These terms refer to a global vision of tennis training in which all components are integrated and are put into practice using a "complex" training approach. The concept of integrated training for tennis states that the traditional distinction between technique, tactics, conditioning, and mentality is more artificial than real. It is practically applied following the principle that when working on technical aspects, players are also working tactics, conditioning, mentality, and vice versa since there is an interrelation and interdependence between all of them. That is why a lesson should have a versatile character its goals should concern more that just tactics and technique. A good coach will implement aims concerning motor and mental development in almost every lesson (Crespo 1999, Schönborn 1999).

III. PLAYER CENTRED COACHING, GOAL (SKILLS)-ORIENTED LEARNING

Modern coaching is also player centred and individualised. It fully recognises the player as the centre of the coaching process and all efforts should be made to provide the best assistance possible to help the player achieve his goals. Educating a person as a whole, teaching not just techniques but also skills and ability to solve the problem.

Coaches spent more work on creating initiative and creativeness (tactical thinking). Winning in children/junior categories is not that much important as reaching planned step by step, training goals and the general development of a player. Therefore the role of a coach in modern sport is different, A coach should be more a guide, who creates positive motivational climate, rather than being an authoritarian. Players are taught to be more independent; they often find "own way" and learn from their? success." A study done in Sweden (Thrope & Dent 1999)) indicated that Swedish players who made it to the top as adults, had childhoods' that were typified by play and practice in a supportive atmosphere, rather than intensive coaching. The philosophy laying behind the most successful

programs means also Goal (skills)-and development - oriented learning -not a result oriented. Therefore mediational approach to teaching and correcting technique and democratic style of coaching are used much more than before and it is exactly what athletes expect (Chelladurai 1984, Martin et. al. 1999, Amorose 2000).

IV. WIDE USE OF SPORT SCIENCE AND TECHNOLOGY, PREVENTIVE / INJURY FREE

Modern coaching is sport science coaching. It is impossible to understand the coaching process at any tennis level without a sound sport science basis, which implies the use of the sport science fundamentals in the daily coaching. Sport science provides tennis coaching with a much better understanding of almost all aspects of the game since major scientific contributions have helped to develop coaching theories and education. The progressive developments in sports medicine, tennis technology, psychology, training theory and other major sport sciences are having a major impact in the delivery of injury free training programmes for players of all ages and playing levels. This is the reason why sport science has become a major part of the coach education programmes worldwide. The challenge is now for sport science to become a major part of the player training programmes of all nations, not only for leading ones.

V. DEVELOPMENT OF COORDINATION AS A BASE OF TECHNIQUE AND THE MAIN MOTOR ABILITY TO BE IMPROVED

As far as coordination is concerned tennis is one of the most demanding sports. Because every incoming ball is different, reaching it on time and hitting it back effectively requires well developed coordination skills. That is why it is a base for developing technical skill and optimal use of other motor abilities as speed and strength. Learning of "final" technique (Schönborn 1999) must be preceded by developing of general, specific coordination and gaining skills similar to tennis (like catching or throwing). Another important matter is that in all major methods it is aimed to teach both reception (ability to judge correctly the flight of the ball and move to the position to play particular shot) and projection (ability to develop the techniques) skills (ITF Coaches Manual 1994). If development of coordination is messed during mini tennis stage it is very difficult to catch up (Pankhurst 2003). Because of its importance all federations emphasise the need to work on different aspects of coordination not only on every lesson, not only during the warm up.

VI. FUNCTIONAL AND BIOMECHANICAL APPROACH TO MOVEMENTS

Adopting "the new methodology" does not mean that the role of biomechanics and technique in players' development is less important than before. Effective implementation of strategy and tactics requires tennis – specific (technical) skills (Thorpe & Bunker 1997, Crespo & Reid 2003). In today's tennis, technique (the

action) is seen as a function of the correct biomechanical principles and as means to implement tactics more efficiently. Each movement should be treated as a tool useful to solve tactical problem. Consequently, the perfect (model) stroke does not exist; "strict imposition of certain grips, stances, backswings and follow-throughs is not recommended Crespo & Reid (2003). The goal of technical development is to structure an individualised model of performance and every player has a right to execute strokes individual way but with the respect of biomechanical principles. Looking from this perspective the success in teaching means respecting individuality and laws/rules (e.g. of biomechanics).

The procedure known in coaches jargon as open-closed-open (Pankhurst 1999) or global- analytic-global (GAG - Maier 1999) became very useful in enhancing both technical and tactical skills easier, faster and more attractive way. The use of the mediational learning technique in correcting players corresponds with this approach.

VII. ADAPTING THE EQUIPMENT, FACILITIES & RULES TO THE PUPILS

The beginner has to deal and become familiar with new, equipment - a racket and a ball. Using the right equipment supports the learning process; low compression tennis balls, reduced-size rackets and courts (see fig 3) make the game easier to play from the first lesson, develop an all court all stroke game, promote the use of the correct techniques and reduce risk of injury. The need to scale down sports equipment, field dimensions and rules was raised already many years ago (Dept. of Leisure, Sport and Tourism 1983). Mini tennis was born in former Czechoslovakia in 1960's and has been widely used in many countries. Which is relatively new, the integration of methodology and equipment used during certain stages of learning is emphasised. Major tennis federations put more importance on coordinating methodology with the equipment and facilities. They usually divide the learning process into stages and recommend adjusting size of courts, rackets and balls to skills, mental and physical capabilities of players much more than before.

The methodology uses the natural feature of human being, which is the ability to adjust to situation. Creating certain situation, coaches support the training goal(s) they encourage pupils to use angle shots as a result of making court wider. or vice versa: making the court very narrow and relatively short encourage students to approach the net more often.

The logical result of this approach is divides the learning process into stages. The names are different; e.g. mini-tennis red-orange-green or micro- mini-midi-maxi tennis but the purpose is the same: making the game more affordable (in methodological sense) for beginners. Because, at the beginning, children start to play from a small distance, the movements are much shorter that regular ones. Reducing court size means reducing strokes. At the beginning children learn just a main phase of each stroke, later core of all movements, and slowly, step by

step they form own strokes. So strokes, very "small" at the beginning, "grow up" with age and competences of players. This process last a few years. Generally there is a tendency to postpone the moment of playing on regular court. Majority of federations use Midi tennis programs (court 18 m long) as a transition between mini- tennis (in UK Mini Tennis Red) and playing on regular court. Generally it is agreed that only extremely gifted player may start to play regularly on full court before the age of 10.

VIII. PROMOTION AND MARKETING ACTIVITIES

In reality of modern world possessing best product is not enough. It is equally vital to promote it. Therefore top tennis nations combine educational and promotion activities, in that case among players, parents and coaches. It is especially important to educate and encourage coaches to learn and use new methodology. The research show that GBA has found "considerable support among physical education practitioners in Europe and the United States" (Griffin, et.al., 1997; Turner, 2001), but at he same time in every country there is a group of "experienced" coaches, who have been using a technical approach for many years and find difficult to change their mentality.

One of the best examples of promotional activities are systems of awards. Many nations use Awards system (or like e. in Switzerland Kids Tests), series of progressive exercises which help children to learn skills, and coaches to sort players by ability. The idea of the system is that children are rewarded for being able to perform certain, progressive exercises. Rewards differ from country to country, in some (e.g. UK) children collect stickers as rewrds for certaing achievement, in other they get bronze-silver and gold medals (similarly to Olympic Games) on each stage. Receiving gold medal mean that the child is ready to start practicing on next stage. Such systems motivate players to learn new skills and go to next learning stage faster (similarly to computer games or belts in judo) but are also strong marketing tools.

SUMMARY

Despite obvious national differences teaching methodologies of leading countries follow similar philosophy, which make the game attractive, especially to young generation. The commonalities in organisation of major system are presented in the table.

Table 1. Summary of common characteristics of modern teaching methods for tennis

	MICRO "PRE TENNIS"	MINI "RED"	MIDI "ORANGE"	MAXI "GREEN"
COURT length x width	0-4 x 2-4 m	6-12 x 4-6 m	12/18 x 5,5- 8,24m	23,77 x 8,24m
NET	60-80 cm	80cm	80/ 91,4cm	91,4cm
BALL	sponge or "red", max. 36- 45g		max. 41-50,5g "Orange"	for 10- "green" from 11 years -regular
RACKET	17-19 inch 43 -48 cm	19-23 inch 48- 58 cm	to 25 inch 58 -63 cm	10 years: max. 26 inch (66 cm) 11 years: free
AGE	Usually 3-6	Up to 8 yrs. 6-7 only when pass award	9/10 yrs. 8-9 yrs "WC" from regional coach	from 10 or 11 years 9 -10 when "WC" from national coach
COMPETITIO NS FORMULA SCORING (examples)	No official competitions	2 sets up to 9 points Round robin (e.g. 6 plrs), no final winner	2 Sets up to 4 games, tiebreak at 3-3. Round robin (4 plrs) No.KO	2 'short set' to 4 with tie break at 4-4 Round robin (4-3 plrs) or KO till 2 defeats in singles and doubles
LENGTH OF COMP./ MATCHES		2-3 hrs/ 7-10mins	3 hrs 15-20mins	3-4 hrs/ 20-35mins

New ideas came very fast into life and already after 2-3 positive results can be noticed. Looks that because of dynamic action taken by the ITF and leading tennis nations the crisis of the game in developed tennis nation was stopped. We believe that it is a good moment to increase promotional activities and development initiatives such as the ITF's "Play and stay" campaign that will help nations produce not only better players but more players. This will increase the "health" of the game worldwide by involving more people and giving them the opportunity to enjoy the many benefits that tennis has for players of all ages and skill levels.

BIBLIOGRAPHY

Amorose, A.J. (2000). "Intrinsic motivation: relationships with collegiate athletes' gender, scholarship status, and perceptions of their coaches' behavior". *Journal of sport & exercise psychology (Champaign, III.), Mar 2000: 22 (1). p. 63-84.*

Bunker, D. J., & Thorpe, R. D. (1982). "A model for the teaching of games in Secondary Schools". *Bulletin of Physical Education*, 18(1), 5-8.

Chelladurai, P. (1984). "Discrepancy between preferences and perceptions of leadership behavior and satisfaction of athletes in varying sports". *Journal of Sport Psychology, 6, 27-41.*

Crespo M. and Cooke K. (1999). "The Tactical Approach to Coaching Tennis". *ITF Coaches Review, Issue 19, 7-8.*

Crespo, M. (1999). "Teaching Methodology for Tennis". ITF Coaches Review, 19,3-4.

Crespo, M., and Reid M. (2002). Modern tactics: an introduction. *ITF Coaching & Sport Science Review*, 27.2.

Crespo M., and Reid M. (2003) "Biomechanics and Teaching Methodology "in: Elliott,B., Reid, M., and Crespo., M.(eds.). *ITF Biomechanics of Advanced Tennis. The*

International Tennis Federation.

Dept. of Leisure, Sport and Tourism (1983). "Sport: are children little adults?". Sydney: Dept. of Leisure, Sport and Tourism.

Meier M. (1999). "The GAG Method". ITF Coaches Review, Issue 19, 15.

Griffin, L. L., Mitchell, S. A., & Oslin, J. L., (1997). "Teaching sport concepts and skills: A tactical games approach". Champaign, IL, Human Kinetics.

Holt, N. L., Strean, W. B. & Bengoechea, E. G. (2002). "Expanding the teaching games for understanding model: new avenues for future research and practice". *Journal of Teaching in Physical Education*, 21, 162–176.

Hopkins, P.D. (1975). A Child's Model for Adult Games: A Viable Alternative. Unpublished paper.

ITF Coaches Manual. (1994). International Tennis Federation.

ITF (1998). Tennis towards 2000. ITF Ltd. London.

Martin, S.B.; Jackson, A.W.; Richardson, P.A. & Weiller, K.H. (1999). "Coaching Preferences of adolescent youths and their parents". *Journal of Applied Sport Psychology*, 11,247-262.

McPherson, S. L.(1991). "Changes in knowledge content and structure in adult beginner tennis: a longitudinal study". *Paper presented at the annual meeting of the NASPSPA. Pittsburg USA*.

McPherson, S. L. & French, K. E. (1991). "Changes in cognitive strategies and motor skill in tennis". *Journal of Sport and Exercise Psychology*, 13, 26–41.

Pankhurst A. (1999.) "Game Based Coaching". ITF Coaches Review, Issue 19, 11-13

Pankhurst A., (2003). Presentation from Polish Coaches Symposium. 24 April 2003.

Pooley, J.C. (1981)."Drop-Outs From Sport: A Case Study of Boys Age Group Soccer". *American Alliance for Health, Physical Education, Recreation and Dance. Ninety-sixth National Eastern District Convention. Boston, Massachusetts. (April 13-17, 1981).pp 32.* Scanlan, T.K., Carpenter, P.J., Lobel, M., & Simons, J.P. (1993). "Sources of enjoyment

of youth sport athletes". *Journal of Pediatric Exercise Science*, *5*, 275-285. Schönborn R. (1999). *Advanced Techniques for competitive tennis*. Mayer and Mayer.

Stean, W.B. and Holt., N.L. (2000). Players', coaches, and parents' perceptions of fun in youth sport. *Avante*, *6*, *84-98*.

Tennant M. (2004). "The Five Game Situations in Mini-Tennis". *ITF Coaching & Sport Science Review 32,7-9.*

Thorpe, R.D. (1983.) "An understanding approach to the teaching of tennis". *Bulletin of physical Education.10(1), 12-19.*

Thorpe, R.D., Bunker, D.J., Almond, L. (1986). "A change in the focus of teaching games". In: Pieron, M., & Graham, G., (Eds.), *Sport Pegagogy: Olympic Scientific Congress Proceedings.*, Vol. 6(163-169). Champain, II; Human Kinetics.

Thorpe, R.D., Bunker, D.J., Almond, L. (1986). *Rethinking games teaching*. Loughbough, UK Loughbough, University.

Thorpe, R.D.(1992). "The Psychological factors underpinning the "teaching for understanding games" games movement". In: T.Williams, L.Almond, & A.Sparkes (Eds.), *Sport and Physical Activity: Moving toward excellence*. Proceedings of the AIESEP World Convention, Loughbough, UK, pp. 209-218)..London:E& FN Spon.

Thorpe, R.D.& Bunker, D.J. (1997). "A changing focus in games teaching". In: L.Almond (ed.), *Physical education in schools (pp.52-80)*. London Kogan Page.

Thorpe, R.D. & Dent P. (1999). "Developing a more Player Oriented Approach to Coaching Tennis". ITF Coaches Review,19,5-7.

Turner, A. P. & Martinek, T. J. (1995). "Teaching for understanding: A model for improving decision making during game play". Quest, 47: 44-63.

Turner, A. P., & Martinek, T. J. (1999). "An investigation into teaching games for understanding: Effects on skill, knowledge and game play". Research Quarterly for Exercise and Sport, 70 (3), 286-296.

Turner, A. P., Allison, P. C., & Pissanos, B. W. (2001). "Constructing a concept of skillfulness in invasion games within a games for understanding context". *European Journal of Physical Education*, 6 (1), 38-54.

Turner, A. P. (2001). "Touch rugby: A tactical twist". *Teaching Elementary Physical Education*, 12 (1), 12-16.

Turner A., Crespo, M., Reid, M., and Miley, D. (2001) "The Games for understanding (GFU) Teaching Approach in Tennis". *ITF Coaches Review, 26, -4.*

Turner A. (2003). "A comparative analisis of two approaches for teaching tennis: Game based Approach versus Technique Approach". *Paper presented at the 2nd ITF Tenis science and technology Congress. London*.

Wakel, L.M.,& Kreisel,P.S.J. (1985)."Factors underlying enjoyment of youth sport". *Journal of Sport Psychology*,7,51-64.

Werner, P., Bunker, D.J., &Thorpe, R.D. (1996). "Teaching games for understanding: Evolution of a model". *Journal of Physical Education, Recreation and Dance*, 67(1), 28-33.

Wright Steven, McNeillb Michael, Fryb Joan and Wang John. (2005). "Teaching teachers to play and teach games". *Physical Education and Sport Pedagogy. Vol. 10, No. 1, February 2005, pp. 61–82.*