

Editors

COACHING & SPORT SCIENCE REVIEW

The Official Tennis Coaching and Sport Science Publication of the International Tennis Federation 25th Year, Issue 72, August 2017

www.itftennis.com/coaching/sportsscience ISSN: 2225-4757

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COACHING & SPORT SCIENCE REVIEW

The Official Coaching and Sport Science Publication of the International Tennis Federation

EDITORIAL

Welcome to the 72nd issue of the ITF Coaching & Sport Science Review (CSSR). This second issue of 2017 is a special monographic issue looking back at the impact of the ITF 'Tennis Play and Stay' campaign, in the tenth anniversary year since the campaign's launch in 2007.

The ITF 'Tennis Play and Stay' campaign aims to promote tennis as easy, fun and healthy, and to ensure all starter players are able to serve, rally and score from their first lesson. Fundamental to the campaign is the use of slower balls by coaches working with starter players, ensuring that their first experience of tennis is a positive one, where players are able play the game.

The articles in this issue include case studies from different nations from around the world, highlighting the effect that the campaign, and related initiatives, have had on increasing tennis participation and retaining more in the sport. Articles included provide insightful updates from research detailing what has been learnt about equipment modification in tennis and how this has impacted skill development; coaching methodology, competition; and general growth in the game over the past ten years.

The ITF are currently undertaking a comprehensive study to 'evaluate the impact of the ITF Tennis Play and Stay campaign on the tennis industry, since its inception in 2007.' The research, which is being administered by Victoria University, Australia, will seek to acquire a broader understanding of the actual adoption and the impact of the campaign by consulting with the National Tennis Associations; the tennis equipment suppliers and manufacturers; teachers and coaches who deliver programmes relate to the campaign; and the players impacted. To support the review and to take part in this study, please click here.

The ITF is pleased to announce that the ITF ebooks app now has publications available in Chinese to download for free or at a significant discount to the hard copy versions in addition to the currently available publications in English, Spanish, French and Russian.

The 20th ITF Worldwide Coaches Conference 2017 by BNP Paribas, will be held at the Hotel Marinela in Sofia, Bulgaria from 11-14 October 2017. The conference, themed "The Journey of the Player", is being organised by the ITF in conjunction with the Bulgarian Tennis Federation and Tennis Europe.

An exciting line-up of confirmed speakers so far includes; ITF President David Haggerty, Mary Pierce (FRA), Louis Cayer (CAN), Magdalena Maleeva (BUL), Anastasia Myskina (RUS), Dr. Bruce Elliott (AUS), Dr. Machar Reid (AUS), Anne Pankhurst (GBR), Dr.



Brian Hainline (USA), Ruben Neyens (BEL), Kathleen Stroia (USA) and Stuart Miller (ITF) among others. For more information on how to register for the largest coach education event held by the ITF, please visit the official page by clicking here.

The <u>ITF Coaches Commission</u> met at Roland Garros on Saturday 3 June 2017 in a session chaired by ITF Board member Aleksei Selivanenko (RUS). Topics covered during the meeting included the 20th ITF Worldwide Coaches Conference 2017 by BNP Paribas; international certification with a move to increase quality and integrity of coaching; on-court coaching; an online continuous education platform; the new ITF ebooks app; and applying social networking and technology in coaching.

The ITF Tennis iCoach website remains at the forefront of online coach education resources, with current research and coaching methodology available to coaches across the world. Some of the latest information published includes a series of 12-and-under player training videos from Ruben Neyens (BEL). Click here to access ITF Tennis iCoach, including existing content from many of the speakers at the forthcoming ITF Worldwide Coaches Conference by BNP Paribas.

The ITF is happy to announce that the Coach Education systems of the Croatia Tennis Association and the Hong Kong Tennis Association have been recognised at Bronze level. Croatia and Hong Kong join the group of nations that have reached the Bronze recognition level which include: Belarus, Bulgaria, Cyprus and Sri Lanka.

The ITF hope that you will find this 72nd issue of the ITF Coaching and Sport Science Review informative and that the case studies and research provided to highlight the impact of the ITF 'Tennis Play and Stay' campaign will continue to contribute to the growth and evolvement of tennis for another ten years.

10 years Tennis Play and Stay: A review on communicating and teaching tennis from (pre)school to advanced ages in Germany

Philipp Born, Hans-Peter Born, Rüdiger Bornemann, Alexander Jakubec and Tobias Vogt (GER)

ITF Coaching and Sport Science Review 2017; 72 (25): 3 - 4

ABSTRACT

Germany has a long tradition of a well-developed coaches' education and always used methodological approaches to teach and learn tennis. The implementation of the Tennis Play and Stay campaign by the ITF in 2007 provided additional boosts to existing programs and brought new ideas and a superordinate system to German tennis. Despite some minor difficulties the P&S campaign was and is successful in Germany.

Key words: Tennis Play and Stay; Germany; campaigns; programs and initiatives **Corresponding author:** p.born@dshs-koeln.de

Article received: 10 Feb 2017 Article accepted: 08 Apr 2017

INTRODUCTION

Germany has always used methodological approaches to teach and learn tennis. Moreover, there is a long tradition of a well-developed coaches' education. The implementation of the Tennis Play and Stay campaign by the ITF in 2007 provided additional boosts to existing programs.

HISTORY

Since 1970, the German Tennis Federation (DTB) initialized several school tennis programs as well as advancing the cooperation between schools and clubs. Additionally, Schönborn et al. (1970) introduced the first methodological approaches to teach tennis, recommending that children should start playing tennis with small wooden boards, the so called 'Holzbrett-Tennis'. Based on these ideas, the commission for school tennis published a series of textbooks ('Lehrpläne des DTB' u.a. Brinker, W. & Dreibholz, K., 1975), primarily including technique-oriented instructions. Bornemann (1977) published the first game-oriented theory; however, at that time only a few coaches, mainly from universities, applied this game-oriented approach.

Subsequently, since the 1980s, there have been several initiatives and programs regarding children`s tennis, adapted tennis equipment ('ST-Ball') and ways to teach and learn tennis more effectively ('Kleinfeldtennis'). The regional association of Württemberg was the first to start an initiative to recruit talented children into playing tennis in the late 1980s. Following that initiative, the first regional tournaments on smaller courts using adapted materials and additional motor skill games were organized and are still running to date ('Kleinfeld-Championat').

Initiatives like the 'DTB-Talentcup', a team competition for the best players aged 11 years and under as well as the 'Street Tennis' initiative have been established years before the implementation of the Play and Stay campaign in 2007 and are still around. However, all these programs and initiatives were mostly regional with no changes in the rules of tennis regarding children's competition.

IMPLEMENTATION OF PLAY & STAY

In addition to all already existing programs, the Tennis Play and Stay campaign brought new ideas as well as a superordinate and holistic system of training methods, court and racket sizes, different ball types and tournaments to Germany. After the launch of the campaign in 2007 the DTB and it's regional associations implemented Play and Stay into their coaches' education and coaches development programs on all levels as well as into the so called 'Online Campus',



the official online coaching platform of the DTB. With this, the gameoriented approach receveived a boost for introducing Tennis. Today, Tennis Play and Stay is the basic concept and talent development program of most of the German tennis clubs to recruit new members. Most of the beginners start with either Tennis1os, Cardio Tennis, Tennis Xpress or other Tennis Play and Stay related programs. In particular the stage 1 green ball has a strong acceptance in the area of adult and adolescent beginners.

PRACTICAL APPLICATIONS

CAMPAIGNS AND INITIATIVES

The TennisPlay and Stay initiatives 'Tennis10s' and 'Cardio Tennis' have been a part of German tennis since 2007. In 2014 the 'Tennis Xpress' manual was translated into German and has been part of the coaches' education ever since.

Beside these programs the DTB, particularly the 'Play and Stay taskforce', and its regional associations have started several initiatives and programs based on the Play & Stay campaign.

Play & Stay congress 2010

The first German Tennis Play and Stay congress was held in Leipzig in 2010 to serve the wider distribution of the campaign in Germany. The title was 'Spielend in die Zukunft', which has the double meaning 'effortlessly into the future' as well as 'playing into the future'. The congress aimed to address all tennis coaches, interested representatives from the regional tennis associations and clubs as well as teachers who introduce tennis in schools.

Competition

Traditionally, German tennis is based on and driven by the tennis clubs and the club team matches organized by the regional associations. In these, the club teams play against each other in a league system. The teams consist of six (or sometimes four) players, playing six (or four) singles as well as three (or two) doubles. Before the Tennis Play and Stay campaign these club team matches have been played in all age groups, from children to seniors. The Play and Stay campaign brought team competitions also for the red, orange and green court. These matches are played either in boys/girls only teams or in mixed teams. In addition to the singles and doubles matches different motor skill games are part of the competition (mandatory in some regions).

Besides the club team matches the number of competitions in Germany increased significantly after the implementation of the Tennis Play and Stay campaign in 2007. Not only are there more normal single tournaments for under 10 years old children, there are also regional tournament series for red, orange and green court players which conclude in a regional Masters tournament held at the end of each summer season. For two years there has also been a national Masters during the winter season which was, however, cancelled due to many regional associations concerns of not wanting a national championship at that age. One of the Play and Stay mottos 'competition runs the sport' was also a decisive element to establish the idea of Tennis Play and Stay in Germany.

International tennis number = 'Leistungsklassen'

Based on the idea of the International Tennis Number (ITN), a rating system for players of all performance classes, the DTB developed a rating system called 'Leistungsklassen' (LK) which can be translated as performance classes. Further to the already existing german ranking, which was only significant to the advanced and high performance players in Germany, the LK gave a number to every player in Germany who is either competing in club team matches or tournaments or both. Starting with LK 1 (all the players with a national German ranking) up to LK 23 all players were rated. By winning against equal or better rated players, one may improve their LK. The system helped further increasing the number of competitions as well as competing players in all ages and of all levels, particularly in mass sport tennis ('Breitensport').

'Tennis badge' ('Tennis Sportabzeichen')

Existing since 1988, the DTB relaunched the 'tennis badge' in 2016 as part of the Play and Stay campaign in Germany. Based on the Tennis Play & Stay concept, the 'tennis badge' is a tennis-specific test in which players of all ages and levels may participate to see how well they perform in different tasks of the tennis game. The test is designed to be taken in all four stages of the Tennis Play and Stay concept (red, orange, green, yellow) and a successful completion is rewarded with bronze, silver or gold certificates and/or medals. The test contains four tennis-specific tasks which cover technical, tactical as well as coordinative and physical parts of the tennis game. The different tasks are rewarded with points which are eventually added to determine the achieved level and certificate.

'Germany plays tennis' ('Deutschland spielt Tennis')

Since 2007, German Tennis clubs begin every summer season with an annual nationwide event called 'Germany plays Tennis'. On this day several events are held in tennis clubs to kick off the summer season, promoting tennis in Germany to attract more and new people to play tennis.

Talentinos

'Talentinos' is a training and marketing concept based on the Tennis Play and Stay campaign. The concept includes a so called 'ball school' for children between 4 and 6 years of age. This 'ball school' is divided into 3 stages, based on the idea of 'basic training' ('Grundlagentraining') as a basic element in talent development of german tennis addressing a wider motor skill acquisition before an early specialization in tennis. After the 'ball school' the 'Talentinos' concept continues with 3 stages of Play and Stay red, orange and green.

CHALLENGES

The DTB is divided into 18 regional associations that are in charge of the tennis development within their region. This is the main reason why there are still some different approaches within Germany regarding Play and Stay. One example is the width of the orange court. Most of the regional associations play their orange-court competitions on an 18m x 8.23m court (the width of the normal court). But there are also regions that play on an 18m x 6.40m court. This can sometimes confuse players when playing tournaments in different regions.

Although the idea of Play and Stay and its programs and initiatives are promoted all over Germany and are part of every coaches' education program, there are still coaches who are not using the adapted material and who are not following the recommendations. The main reason for that may be additional costs and effort that come with practicing Play and Stay.

CONCLUSION

The implementation of the Play and Stay campaign in 2007 brought new ideas and a superordinate system to german tennis. Having a long and successful history of tennis participation programs, the DTB included their existing programs into the Play and Stay campaign, starting innovative and new programs to attract more people to play tennis. Despite some minor difficulties the Play and Stay campaign was and is successful in Germany.

ACKNOWLEDEMENTS

The authors would like to express their sincere gratitude to the German Tennis Federation in support of this manuscript.

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Research inspired by Tennis Play and Stay: What have we learnt about equipment modification in tennis?

Tim Buszard (AUS), Machar Reid (AUS) and Damian Farrow (AUS)

ITF Coaching and Sport Science Review 2017; 72 (25): 5 - 7

ABSTRACT

Since the inception of the Tennis Play and Stay campaign in 2007, considerable research has focused on the effect of modifying equipment on children's tennis experience. Most studies have examined equipment modification from a motor skill perspective, with the typical experiment examining the effect of manipulating equipment on children's performance. Indeed, evidence consistently supports equipment modification as a viable method to improve tennis performance (Buszard, Reid, Masters & Farrow, 2016; Farrow, Buszard, Reid, & Masters, 2016).

Key words: Tennis Play and stay, equipment, modification, performance

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Article received: 25 Jan 2017 Article accepted: 20 Jun 2017

INTRODUCTION

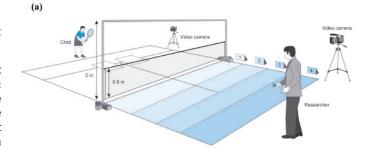
Research inspired by Play and Stay: What have we learnt about equipment modification in tennis?

This article reviews studies that have examined equipment modification in junior tennis. We divided research into five areas: (1) the acute effect of equipment modification on beginners, (2) the acute effect of equipment modification on skilled players, (3) the effect of equipment modification on skill development, (4) the effect of equipment modification on implicit processes when executing a skill, and (5) the identification of key variables to guide equipment modification.

Acute effect of equipment modification on beginners.

When 6-year-old children attempt to play a forehand, their ability to hit the ball accurately is influenced by the racket and ball that they use. In a study of children aged 6 to 9 years, the combination of a 48 cm racket and a low compression "red" ball resulted in superior hitting accuracy in a forehand task compared to other racket and ball combinations (see Figure 1; Buszard, Farrow, Reid, & Masters, 2014a). Nine racket-ball combinations were examined, including and 3 rackets (48 cm, 58 cm and 68 cm) and 3 balls (red, green and yellow). In the same study, children swung the racket with a low-tohigh trajectory and made contact with the ball in front and to the side of their body more often when using the "red" ball. Hence, simplifying the skill by modifying the equipment had a positive effect on children's performance. Similar results were reported in a study of children aged 7 to 9 years rallying with a professional coach (note: these children had 2.5 ± 1.2 years experience playing tennis). When children used a lower compression ball, compared to a standard ball, they struck the ball 6.5 km/h faster and with better accuracy (Larson & Guggenheimer, 2013).

A limitation of these studies is that they examined tennis skills in an environment away from a matchplay context. This issue was rectified in an examination of matchplay performance across the four stages within the Play and Stay campaign (red, orange, green and yellow). Results revealed a trend of longer rallies under conditions of greater scaling (Fitzpatrick, Davids, & Stone, 2016). This suggests that children learning to play tennis on the red stage are exposed to more hitting opportunities (note: in this study, children in the red stage had 2.1 \pm 0.9 years experience playing tennis). This is consistent with the argument that modifying tennis equipment can heighten the likehood of player's achieving success.



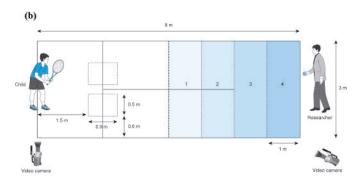


Figure 1. The effect of various racket-ball combinations on hitting performance. A) An illustration of the task set-up. Children's aim was to hit a forehand so that the ball travelled under a 2 metre frame and landed deep in the court. A scoring system was used to measure hitting accuracy. B) The mean hitting scores for each racket-ball combination. These figures were extracted (and modified) from Buszard et al. (2014).

Acute effect of equipment modification on skilled players

The rule change mandating all 10 and under tournaments to use lower compression balls had a significant impact on junior tennis. Despite some public criticism for the rule change, research focusing on skilled 10 and under players supports the change. Compared to a standard yellow ball, playing matches with the lower compression "green" ball resulted in skilled players striking the ball at a comfortable height more often (i.e., between the upper leg and shoulder) and approaching the net on more occasions (Kachel, Buszard, & Reid, 2015). The duration of time between each shot (sometimes referred to as racket-to-racket time) was also faster when using the green ball compared to the yellow ball. Notably, the time between shots more closely resembled that of a professional match. This is assumed to aid skill development, as children will learn to become attuned to the constraints of matchplay that also feature in matchplay as they grow.

Extensions to this study have focused on the effect of manipulating court size and net height for talented 10 and under players. Whilst court size had minimal effect on matchplay performance, lowering net height by 22 cm was found to increase winners, volleys and shots played at a comfortable height, at the same time as fewer shots were played behind the baseline (Timmerman et al. 2015). The authors concluded that a lower net height promoted a more aggressive style of matchplay.

Effect of equipment modification on skill development

Three studies have examined the effect of modifying equipment on children's motor skills over a practice period. Hammond et al. (2006) revealed no differences in skill improvements between children exposed to a lower compression ball and children exposed to a standard ball after 8 weeks of practice. However, we should interpret this result with caution, as skill level and age were not controlled for between experimental groups.

More compelling evidence came from a study of 8 year old children who were divided into four practice groups: a scaled court-low compression ball group, a scaled court-standard ball group, a full-size court-low compression ball group, and a full size court-standard ball group (Farrow & Reid, 2010). The only group to show no performance improvement following 5 weeks of practice was the full size court-standard ball group. Evidently, the adult (or full size) conditions limited hitting opportunities during practice, which seemingly limited the learning experience.

The effect of modifying tennis equipment was also examined during Physical Education classes in primary school (Buszard, Reid, Masters, & Farrow, 2016). The aim was to identify if modifying equipment also facilitates enhanced performance and learning when children practiced in large groups. Surprisingly, however, children displayed similar improvements in hitting performance regardless of whether they practiced with a 48 cm racket or a 68 cm racket. The lack of difference was possibly due to insufficient hitting opportunities during practice. Nonetheless, children who practiced with the 48 cm racket did display greater improvements in hitting technique (according to a checklist that described what a desirable forehand should look like).

Effect of equipment modification on implicit processes when executing a skill

Modifying tennis equipment was examined through the lens of implicit motor learning. Implicit motor learning refers to the acquisition of a motor skill with minimal conscious awareness of the step-by-step processes of how the skill is performed (Masters & Poolton, 2012). One method to encourage implicit motor learning is to reduce errors accumulated during practice. When errors are infrequent, the performer is less inclined to analyse their movements, as there is no error to correct (Maxwell, Masters, Kerr, & Weedon., 2001). It was therefore hypothesised that the modification of equipment to simply skills would encourage a more implicit style of learning (Buszard, Farrow, Reid, & Masters, 2013). Whilst no research has examined implicit motor learning per se, it was observed that lesser skilled children maintained stable performance on a forehand task whilst simultaneously counting backwards when using modified equipment (Buszard, Farrow, Reid, & Masters, 2014). When using adult equipment, however, performance declined significantly. Consequently, it was concluded that the modification of sports equipment to simplify skills promotes implicit processes when executing a motor skill. Research needs to investigate whether the simplification of skills via equipment modification encourages implicit motor learning over a period of practice.

Identifying key variables to guide equipment modification

Whilst it is clear that modifying equipment simplifies the execution of skills and therefore leads to better performance, it unclear as to how equipment should be modified. For instance, should rackets be scaled based on a child's height? Or are other variables, such as grip size or strength, more relevant? Gagen, Haywood and Spaner, (2005) attempted to answer this question by asking children aged 4 to 10 years to strike a ball as hard as possible with four different rackets that varied in length and mass. To the authors' surprise, however, no physical characteristic predicted the optimal racket for each child. The optimal racket was defined as the racket that resulted in the ball being struck closest to the centre of the strings coupled with increased racket velocity.

Timmerman et al. (2015) investigated whether scaling the court size and net height based on racket-to-racket time (i.e., mean time between each player striking the ball) of a professional match would result in desirable matchplay performance. A racket-to-racket time ratio between a 10-year-old match and a professional match was calculated. This ratio was then used to scale court size and net height. Contrary to the authors' hypothesis, however, lowering the net height based on this ratio did not decrease racket-to-racket time, indicating that this rationale was not appropriate.

Recently net height scaling was also examined from the perspective of children's height. The standard net height is approximately 50% of a professional tennis player's height (see Figure 2). It was therefore hypothesised that 50% of a child's height would represent the optimal net height (Limpens, Buszard, Shoemaker, Savelsbergh, & Reid, unpublished). Results offered support for this hypothesis, with desirable matchplay characteristics emerging when the net height was approximately 40% and 50% of children's height. These included more first-serves in, more winners and more shots played from inside the baseline. Significantly, however, rally length was unrealistically short when the net height was closer to 40% of children's height.

	Net height	Approx. % of a 10-year-olds height	Approx. % of a professional tennis players height	
18.	52 cm	40%	29%	
	65 cm	50%	36%	
kg	78 cm	60%	43%	
	91 cm	70%	50%	

Figure 2. Net height viewed as a percentage of a player's height. The average height of a 10 year old is compared with the average height or a professional tennis player (male and female combined). The standard net height is 50% of the average professional player's height. Limpens et al. (unpublished) hypothesised that the optimal net height for children would therefore be 50% of their height. For the average 10 year old, this equates to a 65 cm net height.

CONCLUSION

Studies consistently provide support for children playing tennis with modified equipment. For this research to advance, studies need to focus more on skill development, as opposed to merely performance. Understanding the effect of progressing through each stage of the Play and Stay pathway should be a key focus moving forward. More emphasis also needs to be placed on the measurement of motor skills. Specifically, the use of three-dimensional motion analysis software to measure movement kinematics will provide more compelling data regarding the effect of equipment on coordination. For instance, preliminary data from a recent study highlights the movement adaptations that take place when children use a 68 cm racket compared to a 53 cm racket. As expected, children adapted to the larger racket by choking the racket (i.e., holding the racket higher

on the grip) and swinging with reduced velocity – both of which are considered undesirable adaptations. The use of more sensitive measures of movement kinematics might also indicate a link, if one exists, between equipment and injuries. Finally, more attention needs to be directed towards the key variables to guide equipment modification, such as the ratio between physical characteristics and equipment size.

In summary, the Play and Stay campaign has inspired a large body of research on equipment modification, yet, more work remains if the tennis community is to reap the rewards from modifying the game.

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The importance of modifying the equipment for beginner tennis players: Tennis Play and Stay development in Spain

David Sanz (ESP)

ITF Coaching and Sport Science Review 2017; 72 (25): 8 - 9
ABSTRACT

This article discusses the importance of using the appropriate material when coaching beginner tennis, especially, by means of modifying the material (balls, rackets, and size of the courts) and with methodologies based on exploratory approaches, which help to solve problems without a direct solution from the coach. At the Royal Spanish Tennis Federation we considered it was very important to intervene in the beginners' processes, both, at the methodological level, with courses to train the trainers, and at the sport development level, with some constraints in the competition formats. We have made a number of proposals we expect can contribute to tennis growth, and to make the beginners' experiences more rewarding and healthy for our players.

Key words: development plan, Tennis Play and Stay, adapted material, skills acquisition.

Article received: 12 Feb 2017

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Article accepted: 17 Apr 2017

INTRODUCTION

In Spain, spreading the methodological research and the benefits that adapting the materials to the different learning stages entails, we have started to develop and promote the use of this modified equipment progressively.

In our case, the first initiatives of the Royal Spanish Tennis Federation (RFET) were implemented through the Coaches Education Department, that designed a single subject mini-tennis course, using the game based approach, with adapted material, but besides, given the reluctance of some tennis schools, we decided to support these benefits by means of a Research Project that started in 2012. In this regard, after different pilot projects, with tennis players between 5-10 years of age, we decided to present a national project with a sample that could be representative, but not biased by the coaching methodology in the clubs. We selected a sample of 100 tennis players, all of them 10U, and with an important geographic distribution, since four different Autonomous Communities were selected for the study.

This project has three objectives:

- To compare the traditional methodology with the alternative methodology.
- To value the effect of Tennis Play and Stay practice (adapted material) with beginner players.
- To create a methodological proposal for the intervention.

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This way, players in the 4 geographic zones were divided into 2 intervention groups (7-8 years olds, with orange ball and court, 9-10 with green ball and court) and 2 control groups (7-8 and 9-10 years old, conventional court and yellow ball). They worked over a 3 month period and the research was made with a Test-Retest design, after an intervention process.

At the initial and final evaluation, both technique and tactics during play were assessed. The technical variables in the evaluation sheet designed "ad-hoc", focused on ground strokes and service. These were analysed, and in a closed situation, the coach feeding the balls, and the efficacy and efficiency of the strokes were indirectly evaluated by means of video analysis.

Tactical variables and decision making were studied in controlled situations, rallying with the coach, and then, consistency, direction control, depth and height of the strokes were evaluated, using first, the adapted ball and then, the conventional ball. By means of observational analysis of the video recordings we compared the duration of rallies and the variable tactics mentioned before.

During the intervention process, the players attended 2 sessions per week, and after 20 sessions, we evaluated them again and compared these with the initial evaluations. Sessions during the process were organized in such a way that they all worked with the same structure, targets and content in the session, same times for exercises, both for the control and the experimental group, each group with their material scaled and not scaled.

Apart from the technical and tactical control test, they were given a satisfaction test (perceived efficacy).

Preliminary results confirmed our hypothesis, and just as detected in previous studies, we could prove improvements in experimental groups, as to technical execution (mechanics of the movement), but, as to tactical action in rallies, a greater number of strokes were hit before making an error, and, of course, this impacted on the perceived efficacy. Therefore, at the RFET we decided to start a campaign concentrating on a methodological model that favours learning in the first stages, and where the material used is a key tool to consider.

ACTIONS AND PRACTICE

The activities carried out at the RFET to implement Tennis Play and Stay can be summarised as follows:

- Training the trainers
- Communication and promotional activities
- Long-term player development plan
- Competition

For more information refer to the following link:

(http://www.rfet.es/noticias/det/Cambios_en_la_clasificacion_nacional_para_infantiles_alevines_y_benjamines_a_partir_del_1_de_enero_de_2018/7941.html)

OTHER PRACTICAL APPLICATIONS

With certain populations, the use of this material can be, no doubt, of great help and a great methodological resource. We are referring to the adult and the special populations, that is, those who need some kind of adaptation, like disabled persons, those who have undergone transplants, or suffer from metabolic diseases, etc.

The resources provided by this equipment helps to meet the targets in this recreational environment, a way of exercising in a healthy way (Torralba, Braz, & Rubio, 2014), with a controlled demand and physical commitment and through a progressive learning of the skills that tennis demands. It also covers other aspects like functional independence (Gil, 2011) and the motivation that practice entails, from the point of view of integration and social inclusion (Gutiérrez & Caus, 2006).

Some considerations to bear in mind with these populations, concerning escalated material:

Wheelchair tennis

Some studies, like Sindall et al. (2014) show the benefits of using this equipment, especially in the first stages of wheelchair tennis. The fact that in wheelchair tennis the ball can bounce twice, somehow conditions the second bounce, with low pressure balls, particularly red and orange; the second bounce is too low, making it more difficult, especially for players with spine injuries to make impact with the racket. For this reason, we suggest using the green ball, even if the court is orange, or even red, in such a way that the second bounce may be high enough to allow impact at hip level.

Development disorders

There is a great variety of development disorders, so we must specifically know the characteristics of the players, in order to make the relevant adaptations. Starting from the methodology to teach persons with some kind of development disabilities (Sanz & Reina, 2012), we agree that the equipment that allows for a longer reaction time to provide a response, will clearly benefit the decision making process, which is tougher in the case of persons with these injuries.

Transplant and cardiac condition

In Spain, a research group, from Extremadura University, presented different papers using protocols with modifications of real situations (using two bounces), the possibility of using the green ball for rallies..., and tennis practice is prescribed, of course, with the control that the physiological injuries of the person entails, or the physical activity in the setting of cardiac rehabilitation. (Fuentes y Cols., 2010, 2013), so, we must point out that the use of adapted material in cardiac populations can be very efficient, controlling the intensity of the activity, and keeping the intensity and physiological levels within the parameters recommended by cardiologists.

Conclusions

The practice with equipment adapted to athletes, mainly over the beginner stages, using modified resources favours learning processes, and practice to take place in environments that are similar to tennis, in collaboration and opposition situation rallies. In fact, modified equipment is specially recommended for the development of more open methods, adapted to athletes, game based, so as to achieve both, technical and tactical targets. Along these lines, the paper presented by Ishihara et al. (2017), compared a game-based learning model with another model, based on classic training of technique through repetition. In the first case, the time of inactivity was shorter, such as the time for ball retrieval, the time invested in games applied to tennis and the rallying times. Therefore, we favour the use of adapted equipment and methodologies based on gamebased-practice, so as to encourage implicit learning, and it is along these lines that the RFET is organizing player development models for the first stages of tennis in Spain.

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Growing the game, the modified way!

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ITF Coaching and Sport Science Review 2017; 72 (25): 10 - 11

ABSTRACT

Since the launch of the ITF's Tennis Play and Stay Campaign in 2007 and the change in the rules of tennis in 2012 to facilitate more modified rules tennis training and competition play worldwide, the USTA has been a supporter and promoter of these changes to enhance their outreach in attracting and retaining more youth in the game of tennis. To facilitate this outreach from a programming point of view, a comprehensive outlook was employed that covered the following areas: coach education, training, team and individual competition, and facilities.

Key words: tennis rules, projects, goals, education **Corresponding author:** karl.davies@usta.com

Article accepted: 21 May 2017

Article received: 20 Dec 2016

INTRODUCTION

The mission of the United States Tennis Association (USTA) is to promote and develop the sport of tennis. When dealing with these types of changes in the game, it is up to the leadership of the USTA to make decisions for the game while abiding by the USTA's constitution, purpose, and mission (Hainline, 2012). The Rules of Tennis change rarely. The ITF Rules of Tennis changed for only the fifth occasion in the history of the game in January 2012. The change indicated that 10 and Under tennis competitions could only be played using a stage 3 (red) ball, stage 2 (orange) ball, or stage 1 (green) ball and that a smaller court could be used with short-duration scoring methods. The USTA chose to follow and promote this change as the rule change supported the potential benefits of tennis participation, player development, and the promotion of health and wellness through tennis (Schultz, 2012).

Slower balls and smaller racquets have been used for years in the USA by teaching professionals and coaches learning to play tennis. In a large portion of the cases, the modified equipment was used as a teaching tool so young beginner tennis player could learn basic stroke technique and striking skills (Anderson, 2007).

The first modified equipment program launched by the USTA was Quickstart, a joint project of the Player Development and Community Tennis divisions. The goals of the project were to:

- 1. Increase the number of players beginning to play tennis from the age of five.
- 2. Increase the retention of players age five to ten and beyond.
- 3. Improve the technical, tactical and physical development of players age five to ten.

The USTA studied other successful programs around the world and determined that the way to introduce the use of modified equipment needed to be different. Each of the introductory play opportunities available to children needed to be researched. These play opportunities included casual play, team practices, team competition and individual competition. The modified play program should encapsulate every young child just starting or already in tennis.

In the summer and fall of 2006, 26 pilot programs were launched involving teaching professionals, park coaches, clubs, camps, and school play while testing six specifications of age, court length and width, ball size, weight and rebound, racquet length, weight and grip size, net height and scoring system.

After the conclusion of the pilot programs, the providers were asked to give feedback on their modified experience. The results across the board were very positive. Feedback from the pilot providers showed that the players were playing the game with little formal instruction, and that they were competing and having fun. Children

were having success in playing without going through the traditional model of learning all the strokes and tactics before starting to play (Anderson, 2007).

Additionally, feedback was sought after from the parents of the players that participated in the pilot programs. Parent feedback showed that they felt the play was exciting and dynamic rather regimented and boring. Coaches also gave positive feedback stating that they felt that the children were more successful with modified play and could develop both technically and tactically (Anderson, 2007).

At the official launch of the Tennis Play and Stay program at the US Open in 2007 under the USTA's Quickstart, the feedback was that this program could have a huge impact for tennis throughout the nation by having younger children playing tennis sooner; improving faster both technically and tactically; and by allowing them to be more active and energized while playing tennis.



Figure 1. The USTA's evolution of kids' tennis programmes.

In February 2012, the USTA hosted a USTA Youth Tennis Symposium in conjunction with the National Youth Sports Health and Safety Institute (NYSHISI). Because of a lack of scientific blueprint for how best to introduce a 10 and Under program in the USA, this Symposium's purpose was to create a player development blueprint for training and competition in 10 and Under tennis and the transition to 12 and Under tennis. The purpose of the NYSHISI's involvement was to further their objective of the value they see of participation in sports for children while also being mindful of the multitude of risks from repetitive injury and burnout in the setting of forced, early specialization and the professionalization of youth sport (Bergeron, 2012). The first challenge as dictated by the agenda of the Symposium was to understand that children are not young adults and more insight is required into their physical, psychological, cognitive, physiological and social characteristics. If these factors are not taken into consideration, the make-up of training and



competition programming could miss their mark (Hainline, 2012). Another consideration considered was the challenge, not only for tennis but other sports, to have cohesion in the training and competition make up of young athletes (Hainline, 2012). A particular interest also shown in the agenda of the Symposium was the need to talk about character development as being a critical component of player development. A further talking point was also directed toward the many myths associated with strength and conditioning training in children. While there are limits to the gains a child may obtain through strength and conditioning training, and there are inherent risks in overtraining, there is still an evident role in developing athletic development skills in children (Schultz, 2012).

Since the first launch of Tennis Play and Stay concepts, initially Quickstart, and more recently 10 and Under Tennis; and through the impetus of the symposium hosted in 2012, the USTA has used the programs below to attract and retain more 10 and Under children in the sport of tennis:

Coaches Education

Starting as the Recreational Coaches Workshop and then developing into the Coach Youth Tennis Workshop which started in 2014, the purpose was to engage as many people as possible in 10 and Under training concepts. The Coach Youth Tennis Workshop served as the first two stages in 10 and Under certification as a coaching pathway in the USA.

The workshop involves six online education modules and a 3.5-hour face to face workshop. Recently the 3.5-hour face to face workshop has been translated into a 1.5-hour online course. After these introductory 10 and Under Workshops, should a participant want additional information and certification, they would then take a course with either or both the PTR (Professional Tennis Registry) and USPTA (United States Professionals Tennis Association). These introductory workshops reached over 11,000 coaches so and continues to engage more coaches.

Schools Program

The USTA School's program is a nationwide outreach program that looks at facilitating more tennis exposure in the school's space through offering red ball stage activities by teachers in their PE classes. Teachers are offered training and lesson plans through a 3-hour teacher's workshop.

As a progression to Physical Education tennis programming, Kids' Tennis Clubs were formed and were designed to give children the opportunity to try tennis in a safe, supportive, extracurricular setting.

Junior Team Tennis

Junior Team Tennis (JTT) is a nationwide program looking at engaging youth in team-based competition. Beyond being fun and a great form of exercise, JTT is a competitive, level-based environment that promotes individual growth, social growth, and life skills. For 10 and

Under players, red, orange, and green stage play are each offered. In some areas, green stage play goes as far as 12 and Under play.

Tournaments (Youth Progression)

Youth Progression was designed to help players develop their fundamentals and get the most out of their entry-level tennis experience. The youth progression system rewards kids for competing and inspires them to play more. The mission is to clear each level by collecting a combination of 20 virtual participation stars and/or trophies. Each section of the USTA was offered a choice of four options on how their players would progress from orange stage play to green stage play and then on to yellow ball play. Within the orange and green stage play, players have an opportunity to play individual and team competition that contribute to earning participation stars which moves the players between the stages. The purpose of Youth Progression was to speak more to the current environment of young children through a gamification system.

Early Development Camps

Local Orange and Green Stage Early Development Camps are the beginning of the TEAM USA Pathway designed to provide additional training opportunities for 10 and Under tennis players in each part of the USA. The Camps emphasize fundamentals and overall athletic development. Athletes invited to these camps have access to fun, educational learning while working on their skills. Players selected for these camps would be participants in Youth Progression Events as well (Sanctioned Tournaments and JTT). There are three Orange and Green Ball curriculums, each including a parent presentation, a mental skills theme, and a player/coach feedback form that is included in the camp follow-up to each participant's primary coach and family.

Facilities

To promote more presence of modified equipment play in facilities across the USA, the USTA also offers blended 36/60 foot court lines grants. This grant did not go without resistance from adult players at facilities thinking that it would disturb visibility during their play. Funding would range from 50-100% of the cost of laying the lines. To date, over 20,000 red and orange stage courts have benefited from this grant.

CONCLUSION

As a Grand Slam Nation, the need to grow the game and cultivate the next generation of top professional tennis players will only result from the goal of attracting and retaining more youth in the game of tennis. Modified equipment was found to enhance the player's success when first playing the game and to assist the player's ability to adopt the appropriate fundamentals technically and tactically. The USTA, going forward will continue to use the Play and Stay concept to enhance and further refine programming to the youth in the USA.

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Benefits of the Tennis Play and Stay principles for the physical development of young tennis players

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ITF Coaching and Sport Science Review 2017; 72 (25): 12 - 13

ABSTRACT

This article analyses the advantages of the principles of Tennis Play and Stay in the physical development of young tennis players. The early years of the child in sport are very important since they help them to develop the motor base that will later provide important benefits for development.

Key words: Tennis Play and Stay, motor development, significant learning, comprehensive method

Article received: 19 Dec 2016

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Article accepted: 20 Mar 2017

INTRODUCTION

Tennis is a complex sport that requires coordination, perception, decision making and specific skills. If we consider children under 10, we must bear in mind that they undergo a number of physical processes that have a direct impact on what the child can do. It is key for the coach to understand the child's growth and maturation processes which may limit their capability to perform a task. For many years children and adults were presented the activities in a similar way; regardless of their age or maturity.

Luckily, the introduction of Tennis Play and Stay has helped children to experiment a learning process adapted to their psycho-motor needs, developing a more significant learning.

Among its most important benefits, we can mention the following key points:

IT CREATES A POSITIVE LEARNING ENVIRONMENT FAVOURING A MOTOR PERCEPTIVE ADJUSTMENT

From the motor point of view, the child is under continuous growth, going through a motor perceptive adjustment depending on the Space, the Time, and the relation to the objects (the Ball and the Racket). The adaptation of these axes in the progression of the exercises will help the child to keep an optimal challenge in the activities, going through each stage with the right degree of difficulty.

The motor axis for an appropriate adjustment are:

- The body
- The space
- The time
- The ball
- The racket



In view of the above, it is key for the coach to define the right degree of complexity in each case, so as to favour a harmonic and progressive development. Designing creative courts with a great number of problem situations to solve, will be key for the future command of complex situations.

IT ALLOWS FOR BASIC MOTOR SKILL DEVELOPMENT

All those who have worked with young tennis players have laid emphasis on players' skills. The greater the kids' motor experiences, the greater their possibilities to learn specific skills.

Including activities that develop motor skills like running, tossing, hitting or receiving will help the child to get more motor tools which will be useful in the future to solve situations successfully.

A harmonic and structured organization of the body, the basic motor skills in different situations and with varying and increasing degrees of difficulty will impact on the movement and stroke execution process.

It is key for the coach to understand that the child will undergo different learning stages for these skills.

- Early stage: The child appears not to have a command of the exercise, many errors are made (errors are part of learning).
- Refined stage: The child shows a basic command of the skill and can be successful on some occasions (it is very important to give enough time at this stage).
- Fluent stage: The child performs the skill automatically, improving the execution (in this stage, it is key to create a certain instability increasing the difficulty and learning new skills).

IT FAVOURS THE INCORPORATION OF SPECIFIC MOVEMENTS, NOT OFTEN USED IN DAILY LIFE:

There is a trend to expect a child to manage the racket rapidly, concentrating attention in this fact, and not in the movements of the body to move the racket. The child must have a good command of his body and the movements, it is the "body that moves the racket" and not the other way around.

There is a set of specific movements which need a great control of the body in tennis and young children cannot use them in daily actions.

Examples of these movements could be:

- To perform two opposing movements for the same action with the upper and lower body (Ex. The lower body moves while the upper body turns and rotates backwards to execute a stroke on a forehand drive).
- To perform actions on a distal axis to the centre of gravity above the head (Ex. The service smash).



- To use both arms in coordination for the same action (Ex. Two handed backhand)
- To use the non-dominant arm for an action that calls for accuracy (Ex. tossing for service)

Stimulation prior to these movements by means of games, activities or exercises will greatly benefit the future learning of technique. A Play Tennis adapted area through the adaptation of the courts and balls will be ideal to strengthen these motor practices.

IT IS THE IDEAL ENVIRONMENT TO STRENGTHEN THE DEVELOPMENT OF THE COORDINATION CAPABILITIES:

Motor coordination plays a key role in these stages of learning since it can be considered an integrating capability of all areas. This stage occurs in a very sensitive period of development. That is, coordination acts as a link among all elements in a movement, it integrates the perceptive aspect, the decision making process and the motor aspect.

Strengthening each of these capabilities will help the child in motor situations with certain difficulty to make better and more accurate decisions.

Coordination development will help the child, among other things:

- To develop motor memory.
- To favour creativity.
- To assimilate new movement patterns.
- To justify learning the technical aspect.
- Cognitive predisposition for learning.
- Economize on effort.
- Improve attention.

Once the child manages to build this "set" of movements, it is just a question of combining them.

To invest time on balance development, the appropriate muscle tone for a good position, the proprioception and sensitivity of their bodies in new situations or balls in movement, will create a more complete athlete that will adapt to unstable or unexpected situations, which are so frequent in modern tennis.

The player who takes up the habit of coordinated movement at early ages will be able to continue working on it later on, and will add on more skills while developing others. He will be able to act more rapidly (speed) during a longer period (endurance) and more strongly.

TOWARDS A MORE INTEGRATIVE CONCEPT

Each and all of the aspects above favour the development of a complete athlete. The Tennis Play and Stay environment is the best stage to implement the idea of an integral method for the technical, tactic, motor and cognitive aspects to integrate the same session, depending on the objectives set.

In this integrating concept we have to include learning and practising other sports.

Among the most important advantages of including other sports or activities and their own issues, we can consider:

- They favour the physical development in general, the capability to acquire a skill, coordination, mobility and to develop senses.
- To solve difficult situations, typical of other sports, develops a great improvement in the problem solving and decision making process.
- It motivates children and lets them share team spirit, a sense of belonging to a group, and helps them to identify and practice solidarity in an individual sport.

CONCLUSION

The teaching system by means of Tennis Play and Stay is no doubt the best scenery to develop those skills that will make up the motor base of the child, and let them solve the situations they face in sport more successfully.

To know "what" and "how" to respond in sports like tennis, that call for a great reaction speed, accuracy in the execution technique, and a great variability in decision making is more than enough to support the new methodological theories that underpin all the concepts mentioned in this article.

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Female participation in tennis: She Rallies and Girl Power Camps

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ITF Coaching and Sport Science Review 2017; 72 (25): 14 - 16

ABSTRACT

It is widely accepted that as girls reach puberty, participation in sport rapidly declines. This article aims to provide a brief review of the literature exploring the psychological factors attributed to successful interventions addressing this issue, and to highlight two initiatives that are taking place now to attract, engage and retain more females in tennis. The article will conclude by suggesting that evaluation of these initiatives within the context of transformational leadership theory could offer valuable insights not just for tennis but for sport in general.

Key words: Girls, participation, transformational leadership theory, tennis

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Article accepted: 24 May 2017

Article received: 15 Feb 2017

INTRODUCTION

Part One - Background

There is an abundance of data that shows that as girls move into their teenage years, sports participation reduces (e.g. Nader, Bradley, Houts, McRitchie, & O'Brien, 2008). Since physical activity and sports participation are essential to health and wellbeing, increasing female participation in physical activity is perceived as a national and international priority (Davies, Burns, Jewell, & McBride, 2011; World Health Organisation, 2006).

The "This Girl Can" campaign which has been developed by Sport England and designed to increase female participation in sport and physical activity has recently been evaluated in a report called Go Where Women Are (Sport England, 2015). This document provides specific insight into the effectiveness of various initiatives to engage women and girls in sport and physical activity. It recommends that interventions should consider the need to inspire confidence, the use of appropriate role models and the provision of social support through celebrating achievement regularly with sincerity (Reading et al., 2014).

In general, there is very little evidence on effective interventions into increasing female participation in sport per se (Priest, Armstrong, Doyle, & Waters, 2008). However, there exists evidence on the effectiveness of interventions to increase physical activity in girls that can be drawn upon in terms of highlighting the key psychological factors that should underpin an intervention aimed at increasing girls' participation in sport. A recent meta-analysis of the effectiveness of interventions to increase physical activity among adolescent girls (Biddle, Braithwaite, & Pearson, 2014) found that interventions that were theory based, performed in schools, were girls only and used multi component strategies were more effective. "Multicomponent" strategies were defined as those that incorporated, for example, school plus community plus family

and incorporated an element of social support (Biddle et al., 2014; Inchley, Mitchell, & Currie, 2012).

In summary, several key factors emerge from the literature around girls and physical activity. They would seem to suggest that an effective intervention should:

- inspire confidence
- utilise a multicomponent strategy
- provide a supportive environment
- provide opportunities that are hyper-local
- be underpinned by theory
- be single sex
- incorporate the use of appropriate role models





Due to the multiple factors to be taken into consideration, it is postulated that Transformational Leadership Theory (TFL) may provide an appropriate framework for the evaluation of interventions to increase female participation in tennis. Originating from the domain of organizational psychology and the work of Bernard Bass, it has been conceptualised as a kind of leadership through which followers are inspired and empowered to achieve more than they thought they could because of the behaviours of the leader (Bass, 1990). In the sport psychology literature, transformational leadership has been demonstrated to be effective across a variety of sports and contexts (e.g. Callow, Smith, Hardy, Arthur & Hardy, 2009; Price & Weiss, 2013; Smith, Arthur, Hardy, Callow, & Williams, 2013).

Furthermore, utilising TFL theory to evaluate effective participation strategies and inform future interventions could be particularly relevant to females in sport. In a recent study exploring the nature of TFL behaviour exhibited by coaches in sport with female athletes, four themes emerged from the interviews that were associated with the occurrence of TFL behaviours: caring, motivating, teaching life lessons, and trusting (Newland, Newton, Podlog, Legg & Tanner, 2015). The authors aligned these with the original key conceptualisations of Transformational Leadership theory: idealised influence, inspirational motivation, intellectual stimulation and individualised consideration (Bass, 1985). Caring was associated with individualised consideration. The athletes felt valued by knowing that the coach cared for them and this manifested itself in behaviours such as showing an interest in them as a person as well as a player. "Motivating" was related to inspirational motivation and intellectual stimulation where the athletes felt motivated by their coach having high expectations of them both mentally and physically while teaching life lessons was linked to the TFL conceptualisation of idealised influence. Trust, and specifically bi-directional trust, was also linked to idealised influence (Newland et. al, 2015).



To take steps towards refining what transformational leadership is in sport and particularly to try and advance its relevance in an applied context, the Vision, Support and Challenge Model (VSC) has been developed (Arthur & Lynn, 2016). Originally developed in a military context (Hardy, Arthur, Jones, Shariff, Munnoch, Isaacs & Allsopp, 2010) it was conceptualised in relation to sport by Arthur, Hardy and Woodman (2012).

The model proposes that great coaches achieve optimal athlete outcomes by providing an inspirational vision and the appropriate balance of support and challenge to achieve that vision (Arthur et. al, 2012, Arthur & Lynn, 2016). The model makes a distinction between what the coach does and the effect on the athlete of these behaviours and therefore has the potential to explain the process of transformation that occurs between coach and athlete.

It is hypothesised that the VSC model, underpinned as it is by transformational leadership theory, could provide the theoretical basis for an evaluation tool to measure the effectiveness of interventions to increase participation in sport.

Part Two - Current Initiatives

Two tennis coaches leading the way with transformational programmes to increase female participation in tennis are Judy Murray and Emma Doyle.

1. She Rallies - Judy Murray

She Rallies is a current LTA initiative created and spearheaded by Judy Murray. The vision of She Rallies is to attract and retain more females in tennis in the UK by inspiring, building and empowering a bigger and stronger workforce to create more opportunities for girls and women in tennis.



She Rallies was launched in February 2017 with a first of its kind female only tennis coaches conference. Judy and the LTA gathered a group of experts ranging from coaches and psychologists to journalists, physiologists and Paralympic athletes to create an inspirational vision of the future of female tennis. These female speakers served a dual role of inspiring the all-female audience as well as serving as role models to the audience and delivering the challenge to get out there and get more girls playing tennis and more women delivering tennis.

At the heart of the programme is a network of part - time Ambassadors that have been appointed to train up a workforce of female activators across the UK. These ambassadors have been supported by a comprehensive training programme enabling them to deliver the four strands of the programme:

- Lil Miss Hits (for 5 8 year olds)
- Teen Girls Starter Tennis
- Girls Fun Days
- Girls Recreational Competition

2. Girl Power Camps - Emma Doyle

Working alongside Judy at the launch of the She Rallies programme was Australian High-Performance Coach, Emma Doyle. Emma and Judy met via the Girl Power Camps that Emma has developed in Australia and is rolling out not only on home soil but also in the USA and various locations across Europe. Emma has worked with the LTA and Judy educating coaches on how to coach female athletes more effectively, drawing on her years of experience of working with female tennis players and coaches and the lessons she has learned from delivering Girl Power Camps.

At the heart of the Girl Power Camps are the principles of Engage - Empower - Develop which correlate with the TFL behaviours of caring, motivating, teaching life lessons, and trusting (Newland et. al, 2015). These principles are used to underpin the different types of activities to create a transformational experience for the girls. The camps begin with vision boards and activities aimed at tapping into the individual world of the girls and showing them that they are cared for. The activities progress to incorporate drills around motivating the group and building confidence and these are developed in different directions to show that tennis and sport in general are worthwhile activities not just to improve health and fitness but also to learn valuable life lessons. The challenge level of the activities and drills are matched by an appropriate level of support.

CONCLUSION

There is currently very little research being done on testing and evaluating coaching interventions in youth sport that are underpinned by theory and are interpersonal focused (Turnnidge & Côté, 2016). Furthermore, there is very little research on testing and evaluating research - informed coach development programmes

(Allan, Vierimaa, Gainforth, & Côté, 2017). It is possible that research into TFL theory as a framework for a coach intervention/development programme to increase girls' participation could hold exciting possibilities not just for tennis but for other sports also.

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Tennis Play and Stay – Case studies from South America and West, Central and North Africa

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ITF Coaching and Sport Science Review 2017; 72 (25): 17 -18

ABSTRACT

Tennis is a game; therefore, it's obvious that we need to, as coaches, develop a tactical and playful learning process if we want to retain players in the sport for many years. It's fundamental to have more players in the game, to build better players, to produce top players, to keep the beginners in the game (kids, teens and adults). Tennis Play and Stay is a reality.

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Article received: 28 Jan 2017 Article accepted: 25 Jun 2017

INTRODUCTION

It all started when I attended the Tennis Play and Stay Seminar that was organized in London in 2007. I had the opportunity to hear about the Campaign, I tried the red, orange and green balls and I got really convinced that Tennis Play and Stay will be a successful project for Brazilian tennis. In fact, with Tennis Play and Stay "Tennis is easy, fun and healthy".

Next step: Transmit the motivation/enthusiasm to the president of Confederação Brasileira de Tenis, national tutors, coaches and teachers.

In April 2007 during Davis Cup Brazil v Canada the Tennis Play and Stay Campaign was launched. Media, coaches and the Davis Cup teams attended the event.

After the launch, South America has trained around 3200 coaches in more than 200 courses (Modules ABC) and Tennis Play Stay courses.

In our courses, we gave special attention to: convince the coaches that Tennis Play and Stay works (brings more people to the game, better development of players, healthy, fun, financially accessible). Also, we worked on the mentality of the coaches. We worked hard in convincing them about the importance of searching for new and updated information. The consequence was a consistent participation in courses and conferences.

Challenges: Some problems faced:

- 1) Some older coaches that were not open to the "new" changes.
- 2) Coaches that had a very stable job in clubs (they were working for a long time in the club and had a waiting list of students and they didn't care about the quality of their coaching).
- 3) Access to Tennis Play and Stay equipment (many shops were not selling the balls).



- 4) Expensive materials (imported).
- 5) Few public courts.

After some time, these problems were solved except the amount of public courts.



CONSOLIDATION OF THE PROGRAM: THE LAUNCH OF TENNIS 10'S

Another aspect that was very important for consolidating the campaign was the launch of Tennis10s and the new rules approved (2012). All the clubs and academies adopted these guidelines for 10&U competitions and consequently it became stronger.

SLOWER BALLS AREN'T ONLY FOR CHILDREN: THE LAUNCH OF TENNIS XPRESS

During the Brazil v Russia Davis Cup tie, a course was organised for coaches where Tennis Xpress was launched and promoted. After that many courses were organised throughout the country. Many clubs have implemented the use of slower balls for beginner adults.

LAST STAGE: DEVELOPMENT OF TOP PLAYERS THROUGH THE SLOWER BALLS AND SMALLER COURTS

In this final stage, it was important to establish a teaching methodology of training potential players using the slower balls and smaller courts and not rush to play in a full court with regular balls. The lengthy process to develop a top player is a reality and the idea is not to rush through any phase, but use as much as possible the benefit of each stage (e.g. Orange court).

I do believe that Tennis Play and Stay was the most important change in tennis that happen in the last years. It's all about the future of our game. It's fundamental to have more players in the game, to build better players, to produce top players, to keep the beginners in the game (kids, teens and adults). Tennis Play and Stay is a reality.

Since its official launch by the ITF in 2007, the Tennis Play and Stay concept has been adopted in all countries of West, Central and Northern Africa. For example, Senegal, Togo, Benin, Mali, Burkina Faso, Gambia, Ghana, Tunisia, Morocco and Egypt, all organized a Play Tennis training in their respective countries in 2008. This was followed by the Central African Republic, Mauritania, Algeria, Nigeria, Côte d'Ivoire, Gabon, Liberia, Sierra Leone, Congo and Democratic Congo in 2009.

The Tennis Play and Stay concept has made the learning process to be more attractive in comparison to more traditional and outdated styles coaching and developing players. In addition, it has helped countries which face infrastructural constraints.

The best of the testimonies that I had during all of the clinics and workshops that I have been a part of, was from the National Technical Director of the Senegalese Tennis Federation who said: "At the end of the 4 days clinic, the coaches realized that with the old-style teaching methodology, they did more "Play & Go" and did not understand why our players do not adhere to tennis and end up abandoning it. On the other hand, with the new teaching methodology of the Tennis Play and Stay, they understood that by adapting the material and the zone of play to the level of the player, the players enjoyed learning to serve, and being able to rally quickly in addition to that they have enjoyed it, I thank the ITF for this initiative because it will radically change our working methods and allow us to attract more participants."

I have personally experienced a momentous change in teaching, elder coaches are not hiding their scepticism, the new ones seeking to demonstrate the validity of the operation and the learning process.

In spite of this climate of opposition between the followers of the older teaching methods and those saying, "the child and the game are at the heart of the learning process", I feel a real evolution in the world of teaching; more sharing, more pedagogical research and referenced situations, a real desire to share, to exchange knowledge, to debate. (While arguably twenty years ago everyone kept their own methods to themselves).



As a coach in and amongst the day to day goings on on the court in various cities and nations, I am convinced of the merit of this concept, the system of progression (Red, Orange and Green) allows each student to assess their level without needing to refer to a ranking.

Tennis is a game; therefore, it is obvious that we need to, as coaches, develop a tactical and playful learning process if we want to continue retaining players for years.

CONCLUSION

The positive reception and impact of the Tennis Play and Stay campaign outlined through first-hand experiences from experienced coaches and ITF Development Officers in their respective regions is a testament to how the philosophy of the initiative can transcend through all nations across the world regardless of size or resources available.



ANZ Tennis hot shots: Developing, nurturing and promoting participation

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ITF Coaching and Sport Science Review 2017; 72 (25): 19 - 20

ABSTRACT

ANZ Tennis Hot Shots is Tennis Australia's official development program specifically designed to introduce primary school children between five and 12 years of age to tennis. At the core of the program is an innovative, practical philosophy called 'Learning through play'. This means that playing the game of tennis, or modified versions of the game, is the central feature of all sessions. The use of tailored equipment including smaller courts, racquets and low-compression tennis balls ensures children are introduced to tennis in an environment that is suited to their age and skill level. This approach makes learning tennis fun and easier and the result is more children playing a better standard of tennis

Key words: tennis development, learning through play, tailored equipment

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Article received: 14 Jan 2017 Article accepted: 27 May 2017

INTRODUCTION

Since the launch of ANZ Tennis Hot Shots in 2008 the program has focused on getting more children playing tennis more often. The ANZ Tennis Hot Shots participant pathway has four stages which children progress through - Blue, Red, Orange and Green (Table 1.) These stages are age related but not age dependant as children progress as they attain the relevant tactical and technical competencies in addition to behavioural competencies situated in the social and emotional learning domains related to developing a love of the game and being a good sport.

Stage	Age (years)	Court Size	Racquet	Ball
Blue	lue 3-5 Variable - defined dropdown lin		19 inch	Red ball, foam ball, large soft balls, balloons
Red	5-8	3m x 8.23m progressing to 5.5 x 10.97	21 inch	Red 25% compression
Orange	8-10	6.5m x 18m	23 inch	Orange 50% compression
Green	9–12	Full court	25 inch	Green 75% compression

Table 1. ANZ Tennis Hot Shots stages

In order to promote children's participation in tennis, four key program components were established with the coach being a key driver in each with the exception of Community Play. Tennis Australia coaches are supported to deliver the ANZ Tennis Hot Shots program in various ways and the ANZ Tennis Hot Shots philosophy is integrated into the overall Coach Education pathway.

- ANZ Tennis Hot Shots Schools
- ANZ Tennis Hot Shots Community Play*
- ANZ Tennis Hot Shots Coaching
- ANZ Tennis Hot Shots Match Play
- * Community Play is a volunteered delivered program for Regional Clubs who cannot access a qualified tennis coach.

ANZ TENNIS HOT SHOTS COACHING PROGRAM

The ANZ Tennis Hot Shots program provides coaches with the capacity to modify the game by adapting the playing area (e.g., making the court smaller or larger), changing the equipment (e.g., using a variety of sized balls with varying compression levels and different size racquets) and changing the rules (e.g., permitting the ball to bounce twice) to cater for the developmental readiness of children.

Coach Demographics

There are currently 973 registered ANZ Tennis Hot Shots Coaches in Australia. Of these coaches 83% are male and only 17% are female which is consistent with our overall workforce. In relation to the qualifications of coaches, 30% have a Junior Development qualification (equivalent to ITF Coaching Beginner and Intermediate Players) and 70% have a Club Professional (equivalent to ITF Coaching Advanced Players) or higher qualification.

Coach Benefits

ANZ Tennis Hot Shots coaches receive numerous benefits to support the delivery of the program in the areas of education, marketing, equipment, participant benefits, money can't buy experiences and the opportunity to link to the Tennis for Primary School programs in addition to the ANZ Tennis Hot Shots Match Play program. Upon initial registration coaches receive a starter equipment pack which includes balls, nets and signage as well as general program resources such as certificates, marketing templates, competency report cards and access to the ANZ Tennis Hot Shots lesson planning App.

The ANZ Tennis Hot Shots coaching App was launched in 2015 and is available globally in both the iTunes and android app stores. It is an easy-to-use tool packed with more than 120 activities with video footage which are broken down into the four stages to ensure coaches meet the developmental needs of kids. Furthermore, it provides coaches with term plans and the ability to create their own activities and term plans. To date the app has been downloaded more than 3,500times and has been a fantastic tool to assist in the upskilling of coaches Australia wide.

To reward coaches for their significant contribution, a \$2 rebate to spend on equipment for each child they register to the program annually is provided. Coaches are also able to apply for additional funding to support the marking of blended lines or the installation of permanent mini courts.

Marketing support

Since the launch of ANZ Tennis Hot Shots, Tennis Australia has invested significantly in the branding and marketing of the program. In addition to providing coaches with local area marketing templates, the program has a national marketing campaign during both spring and summer. These campaigns, which drive the acquisition of new business for coaches, have evolved since the launch of the program and currently focus on demonstrating that tennis is a sport you can play for life. The campaign drives more than 200,000 unique browsers to hotshots.tennis.com.au annually and by capturing



data when parents complete the expression of interest form it has provided the following insights in connection to new participants.

Gender: 58% boys and 42% girls

Stage: Blue 18%, Red 48%, Orange 21% and Green13%

Day they want to play: Monday, Tuesday, Wednesday and Thursday 14%, Friday 13%, Saturday 18% and Sunday 13%

These insights demonstrate the importance of delivering a quality program for children as 66% of the participants entering ANZ Tennis Hot Shots are in the Blue and Red stages. It also highlights the desire of parents to have their children learn tennis on weekends with 31% of all requests for sessions evident on the weekend. There are 654 coaches nationally who utilise the ANZ Tennis Hot Shots website to promote their tennis venues with each coach averaging three ANZ Tennis Hot Shots coaching venues.

TENNIS FOR SCHOOLS PROGRAM

The Tennis for Primary Schools program provides opportunities for teachers and coaches to deliver the ANZ Tennis Hot Shots (ANZTHS) in the school environment. Teachers and coaches have the ability to participate in one of two programs, the School Partnership Program; which sees tennis delivered as part of the health and physical education curriculum or the School Play Program; which supports in transitioning students from learning the game to playing the game. Both programs support the ongoing pathway of connecting schools to community clubs for ongoing participation.

The School Partnership Program is Tennis Australia's flagship school program with more than 2,000 schools across Australia delivering tennis. The Tennis for Primary Schools resource which supports the delivering of this program has been developed to align to the Australian Curriculum: Health and Physical Education (AC:HPE) and has been endorsed by the Australian Council for Health Physical Education and Recreation (ACHPER).

The resource addresses two strands, Personal Social and Community Health (PSCH) and Movement and Physical Activity (MPA) as embedded in the AC:HPE and is underpinned by the Game Sense Approach (GSA). This educative approach to pedagogy, which is applied throughout the resource, has importance to the development of general capabilities in the Australian Curriculum and can therefore be delivered across all learning areas.

ANZ TENNIS HOT SHOTS MATCH PLAY

ANZ Tennis Hot Shots Match Play is designed to provide children, who are learning tennis, the opportunity to transition from learning the game to playing matches in a modified, fun and friendly teambased environment. It is intended to provide children with a positive experience and to foster a love of the game that encourages lifelong tennis participation. The program is supported with complimentary

resources to assist in the delivery of a quality playing experience for children. There are currently 381 venues delivering Match Play Australia wide. Australian tennis players Daria Gavrilova and Thanasi Kokkinakis have recently become ambassadors of the program.

PROMOTING ANZ TENNIS HOT SHOTS AT THE AUSTRALIAN OPEN AND AUSTRALIAN OPEN SERIES EVENTS

The Australian Open and the Australian Open Series events provide a platform to promote the ANZ Tennis Hot Shots program and reward current participants and deliverers. At the Australian Open, families and children are provided with numerous opportunities to pick up a racquet and play. In 2017 more than 35,000 people visited the ANZ Tennis Hot Shots Fan Zone activation and over 12,000 children played on the ANZ Tennis Hot Shots mini-courts.

Coaches are rewarded with the opportunity to have children from their clubs participate in on-court activities prior to the start of play each day with over 100 coaches and 1,000 children participating in 2017. Additionally, more than 150 ANZ Tennis Hot Shots players had the opportunity to toss the coin for a main draw singles match during the tournament.

In 2017 a record 17,537 people attended the fifth annual Kids Tennis Day which provides families and children to play ANZ Tennis Hot Shots at Melbourne Park on the Saturday prior to the Australian Open. This family event included a one-hour spectacular on Rod Laver arena that included tennis champions such as Novak Djokovic, Roger Federer, Milos Raonic and Daria Gavrilova who were joined by DreamWorks Animation's Poppy and Branch from the hit movie Trolls, The Penguins of Madagascar and PO from Kung Fu Panda 3 for some fun on centre court.

CONCLUSION

The holistic approach to the growth of ANZ Tennis Hot Shots since its launch has proved to be a key to its success in driving tennis participation. The success of the Tennis for Primary Schools program in recent years has resulted in more than 380,000 kids participating in ANZ Tennis Hot Shots. Increasing the transition of children through the ANZ Tennis Hot Shots pathway into Match Play will provide the platform for the on-going success of tennis participation in Australia in the years to come.

The role of the coach is fundamental to the continued growth of the program as they provide the opportunity for the aforementioned transition of children from tennis in schools to club based programs. Furthermore, coaches have the ability to inspire a passion for the sport in children and develop their fundamental technical and tactical competencies to set them up for a lifetime of play.



How to better introduce and retain recreational adult tennis players in tennis... the best sport for life, general health and fitness

Dave Miley (IRL)

ITF Coaching and Sport Science Review 2017; 72 (25): 21 -23

ABSTRACT

This article outlines ways to effectively introduce and retain starter/recreational players in tennis. It outlines the scientifically proven health benefits of tennis and shows how the use of the slower balls to introduce starter adult players to the game will ensure that they can more easily rally successfully and have a beneficial workout akin to interval training as per the research presented. It states that because of the slower balls, it is now easier for coaches to adopt the game based approach methodology to introduce starter adults within an active and dynamic teaching environment. The article differentiates between "tennis competition" and "tennis play" and emphasises the importance for clubs and tennis venues to use ratings and user-friendly formats and scoring to effectively organise social "tennis play" for the recreational players and suggests that this could be positioned as a new global follow up programme to Tennis Xpress. By focusing on the concepts outlined, this can help coaches and tennis venues to retain more adult players in tennis by providing a successful, fun and positive start to the sport and by providing motivation for recreational players to continue playing and trying to improve their level.

Key words: Adult, tennis, participation; slower Balls; competition; ratings; Canada

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Article received: 30 Jan 2016 Article accepted: 25 May 2017

INTRODUCTION

Tennis is one of the best sports. However, current research shows participation in many of the most developed tennis nations facing challenges with significant declines in participation rates (USTA, FFT, KNLTB, ITF). This article outlines some effective ways to better attract and retain adults in tennis.

BENEFITS OF TENNIS: WHAT SCIENCE SAYS.

There has been considerable research published that has outlined the proven benefits of playing tennis.

Dr Jack Groppel, Cofounder of Johnson & Johnson Human Performance Institute, in an article first published in 1998, outlined "34 Reasons to Play Tennis" and its favourable health and fitness effect even for recreational players.

Further studies, amplify the statements in Dr. Groppel's articles. Pluim et al (2007) showed that recreational players playing an hour of tennis, with similar level players, covered an average distance of 3.17 kilometres and had an average heart rate while playing of 149 beats per minute.

Further research concluded there was a positive association between regular tennis participation and improved aerobic fitness, a leaner body, a more favourable lipid profile, improved bone health and a reduced risk of cardiovascular morbidity and mortality (Pluim et al, 2009).

Kovacs et al (2016) concluded that regular tennis participation can improve aerobic capacity, lower resting heart rate and blood pressure, increase bone density, increase reaction time, improve strength and flexibility, lower body fat, lower cardiovascular risk and mortality risk.

Additional research tracked people participating in different sports over a twenty-year period concluding that if you played tennis or badminton three times per week, you would reduce your risk of heart disease by 56% (Oja et al, 2016).

There can be little doubt that playing tennis at the recreational level is great for Health and Fitness!



EFFECTIVE PROMOTION OF TENNIS IS NOT ENOUGH!

Promotion of the proven benefits of tennis is very important, as is improved customer service, animation and passion from coaches. However, promotion and better customer service across the sport will not provide the solution to participation challenges if the tennis product that customers get in their first exposure to tennis does not motivate them to return.

There are many examples of well promoted National Association adult participation programmes which have been successful at attracting adults to try the game but with low associated retention rates such as happened with the well promoted USTA Tennis Welcome Centres programme in 2008. If the sport is so great, why are retention rates of adults often so low?

SLOWER BALLS, SMALLER COURTS, EASY GAME!

Let's start by looking at how the introduction to kids has changed. I was involved with the ITF's very successful Tennis Play and Stay campaign, launched in 2007. The campaign, put together with the help of experts in tennis participation and in conjunction with the



tennis industry and with support from the ATP and WTA Tours, lead to the subsequent rule change mandating the use of slower balls in 10 and under competition. This changed the way coaches worldwide introduce tennis to young kids. If the competitions used the balls, the coaches had to use the balls in training. The obvious is often the greatest secret and today most coaches worldwide are using the slower balls with modified courts and racquets making the game easier and more fun for kids (Reid and Farrow, 2010).

The slower balls have also allowed a change in teaching methodology by making it easier for coaches to change from an introductory teaching methodology, often heavy on technical instruction, relatively static teaching situations with little playing of the game to a Game Based Approach, where kids play the game or are given active game based tasks. Coaches then provide relevant instruction and use appropriate slower ball to differentiate the task to ensure success.

TENNIS NEEDS TO COMPARE WELL TO OTHER SPORTS

Whilst the introduction of tennis to kids has changed dramatically, most coaches worldwide continue to introduce tennis to adults using the regular ball in a relatively static and often overly technical teaching environment.

By the age of 35-40 most people are stopping or reducing significantly their participation in other sports with many turning to tennis. However, the first tennis experience for adults often involves little, if any, time spent rallying, moving, playing the game and getting a workout. These adults are often coming from playing an active and dynamic sport involving a good workout and reasonable success and fun. Tennis needs to compare well with the active sport they come from!

The best and most addictive part of tennis is hitting the ball over the net; hitting the ball back; and then playing the point......Serve, Rally and Score! This is what got most tennis players hooked and by giving starter players that "taste" of the best thing in tennis as soon as possible, there is more chance to retain them.

THE SLOWER BALLS ARE NOT JUST FOR KIDS!

As part of the Tennis Play and Stay Campaign, Tennis Xpress was launched in 2012 encouraging coaches to use the slower balls with starter adults. This starter programme which uses the slower balls in an active and dynamic teaching environment to introduce the game, has proven to be very effective at introducing tennis to adults (e.g. the successful LTA Tennis Xpress programme launched in 2013).

Adults today have shorter attention spans when learning something new and are used to achieving "success" quickly in their leisure activities. It's vital that the experience for starter tennis players is not only active and fun but also one involving reasonable success from that first lesson.

I have never come across any starter adult that cannot rally with at least one of the slower red, orange or green balls. Using the slower balls ensures that starter players can rally with other starter players and guarantees more success, more rallies, more fun and a great workout. As per the research quoted, starter players rallying with the slower balls find themselves moving 1 or 2 metres in different direction to get to the ball with their heart rates quickly up above 140 beats per minute. They are doing interval training, whilst having fun at the same time.

Tennis Xpress has been successful but has yet to have the degree of impact globally that the 10 and under competition mandate had on the way coaches work with young kids. With no rule in place for coaches working with starter adults, extensive promotion is needed to change coach behaviour.

APPROPRIATE PLAY/COMPETITION DRIVES THE SPORT

Once players are introduced to tennis and decide they want to continue in the sport, tennis faces another challenge to motivate them to stay in the game. It's often said that "competition drives the sport". I believe it's more correct to say that "appropriate play/competition drives the sport".

There is a big difference to me between "play" and "competition". The word "play" is associated with fun. "Competition" is more serious and can intimidate recreational players. "Tennis competition" results are usually recorded. In "tennis play" you keep score and play the game but the results are not recorded and so there is less pressure and more chance for fun.

Many tennis venues today are, in my opinion, driven too much by coaching. They are often good at organising coaching but usually provide competitive opportunities only for the small number of more advanced players. They are not very good at organising "play" opportunities for their recreational players. To effectively retain starter players in tennis, it's important not only to introduce the game effectively, but also to adapt follow up "tennis play" to the needs and lifestyles of recreational players by organising user-friendly play opportunities in combination with the slower balls. Ideally the "play" should involve a social element where the participants get to meet and mix with other recreational players and be held at a time that suits the players concerned (ITF Tennis Xpress, what adults want, 2012). Perhaps a new programme "Tennis Xpress Play" could be a follow up to Tennis Xpress?

The rules of tennis allow many different formats and scoring systems and these can be used effectively to better retain recreational players (Crespo and Miley,1999). They also allow the use of the green ball, which now resembles a regular yellow ball, on the full court. The availability of this ball for adult recreational play is another challenge. The Tennis manufacturers and the national tennis federations need to work together effectively to not only promote the green ball but also to improve the availability in retail sports shops and tennis venues.

RATINGS

The introduction and use of ratings for all recreational players can also be a very effective tool at the club/micro level. Once a player has been introduced to tennis and has progressed to playing with the green or regular yellow ball, they should be given a club rating to help them find similar level players to play with and to provide a pathway that motivates them to continue to play and improve.



TENNIS CANADA-A GREAT EXAMPLE OF GOOD PRACTICE!

One of the few nations among the developed tennis nations that has seen significant increases in tennis participation is Canada (the number of Canadians playing tennis at least once increased from 5,055,000 in 2012 to 6,532,000 in 2016 (Charlton Strategic Research Inc., 2016).

CONCLUSION

Tennis has proven to be one of the best, if not the best, sport for life and general health and fitness. Tools exist today to make the introduction of tennis to starter adult players more active and dynamic, providing reasonable success and a good workout in playing the game from the first lesson.

Coaches should use the slower balls and game based methodology to ensure an active, successful and fun introduction to the game. The tennis venue should provide, for the recreational adult players, user-friendly scoring and play formats in a friendly and social setting, using the green ball and in conjunction with ratings, to better retain players introduced.

If tennis venues and coaches worldwide focus on these important tools to attract and retain starter/recreational players and tennis continues to promote effectively the positive benefits of the sport, I believe there is no limit to the sports growth worldwide!

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Growing a bigger participation base: the LTA's Tennis For Kids programme

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ITF Coaching and Sport Science Review 2017; 72 (25): 24 -25

ABSTRACT

This article outlines the LTA's Tennis For Kids Programme, which was launched after Great Britain's Davis Cup victory in 2015. Since then, the initiative has seen over 35,000 new children take up tennis and 15,000 continue to play. This article discusses the approach to coach training, lesson plans and also considers more cost-effective approaches for rolling out a similar initiative to get more people playing more often.

Key words: Participation, initiative, Tennis For Kids, Beginner tennis

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Article received: 30 Feb 2016 Article accepted: 20 Jun 2017

INTRODUCTION

At the heart of the LTA's strategic plan is their mission; 'Get more people playing tennis more often'. With many sports in the UK in decline (Sport England, 2017), there is a real need for governing bodies to demonstrate the benefits of their sport and roll out initiatives that capture those benefits with a view to growing a bigger participation base.

Recent research has highlighted numerous health benefits associated with tennis. Specifically, people who choose to play tennis appear to have improved aerobic fitness, a lower body fat percentage, a more favourable lipid profile, a reduced risk for developing cardiovascular disease, and improved bone health (Pluim et al., 2007). More recent research has also suggested that tennis players live longer through the associated health benefits.

Research by the LTA has shown that in order to create lifelong participants, it is critical that the individual initiates tennis at a young age, preferably before the age of 10 to significantly increase the likelihood of lifelong participation. Very few adults learn to play tennis from scratch, and therefore tennis has to be learned at a young age for there to be any chance of retaining or winning back adults later in life (LTA, 2016). By acquiring the tennis skills when young, people have the foundation to stay in or return to the game whenever they choose. Indeed, critical windows for coordination development occur throughout childhood (Sackey-Addo, Perez & Crespo, 2016), further re-enforcing the need for children to begin playing tennis (and other sports) at an early age.

THE TENNIS FOR KIDS CAMPAIGN

The Davis Cup victory in November 2015 by Great Britain created an opportunity to inspire the next generation of players in the UK. From this opportunity, the Tennis For Kids campaign was created. The campaign was a large scale participation initiative to get 10,000 new children playing tennis for the first time in order to design and build a lasting Davis Cup legacy. Those 10,000 children, new to tennis, would receive six hours of free coaching across a six week course from qualified coaches. Participants who were aged between 5 and 8 years old would also receive a free racket upon completion of the course.

TENNIS FOR KIDS CAMPAIGN: KEY STEPS

- 1. Coach application: All LTA accredited coaches were invited to apply to be part of the 'Tennis For Kids' campaign by submitting a video outlining why they wanted to be involved. Over 900 coaches applied in year one with 875 attending one of the 16 coach training days held across the UK.
- 2. Coach training: Coaches were required to attend a four hour training day workshop which covered the 6 week on-court

lesson plans, how to manage bookings for the course, and how to promote their courses locally. A team of mentors to inspire and share their expertise at the training days was recruited, including Davis Cup Captain Leon Smith, former British number 1 players Annabel Croft, Anne Keothavong & Greg Rusedski. The training days were incredibly successful with a real sense of energy and excitement coupled with a collective purpose to seize the moment post Davis Cup.

- 3. Coach delivery: Coaches, working with their venues, set-up courses at any point in the year between April and September to deliver the six weeks of lessons. Courses were advertised and booked online via ClubSpark an online booking engine. At the training days the coaches were briefed off court about the delivery requirements, which included how to take bookings online. Having a website for bookings allowed the LTA to effectively promote and market the campaign with a national media launch all directing parents to one place online.
- 4. Conversion: Coaches and venues worked together to ensure that parents were given an incentive to continue playing tennis beyond the six week course. Offers included half price club membership or percentage discounts on the standard programme running at the venue.



Image 1. Coaches trying out exercises from the six week course, as part of the official coach training days.

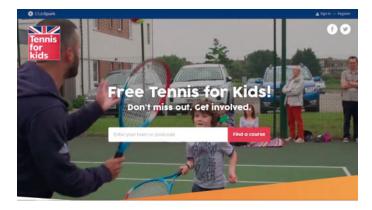


Image 2. The booking website for parents to find their local Tennis For Kids session.

THE 6 WEEK LESSON PLANS

A panel of experienced coaches developed a set of lesson plans. The purpose of the sessions were to develop sound athletic and tennis fundamentals, including 'send and receive' skills, throwing, catching and general coordination development. The objective of the course was to guide beginner children to be able to serve, rally and score by the end of the six weeks. Within the lessons, emphasis on large group organisation was also given to ensure sessions had maximum involvement and looked like tennis.



Image 3. The lesson plan structure for the six week course.

RESULTS FROM THE CAMPAIGN

In year one, the target was to recruit 10,000 new boys and girls and retain 10%. This was exceeded with 13,250 kids booking on to a course and 43% signing up to a coaching programme after the course or joining a club membership. As a result of the huge success in 2016 the LTA committed to the campaign in 2017 and doubled the target to 20,000 children receiving a free 6 week course and a free racket. From a promotional perspective, a national launch saw '#TennisForKids' trending 7th on twitter and within 2 weeks of the launch the target of 20,000 bookings had been achieved. At the time of writing this article 22,200 kids are booked on to a course with thousands more on waiting lists.

In year 2 the objective is to see an increase in retention (up to 50%) after the courses. To help achieve this coaches and clubs must work together to agree a strong follow on offer on either coaching programme or membership. To help target the parents of the kids booking on to courses the LTA provided Tennis Xpress support packs (adult rackets and green balls) to circa 500 coaches – which was well received by coaches and parents.

IMPLEMENTING A TENNIS FOR KIDS CAMPAIGN WITH LIMITED RESOURCE

Tennis For Kids contains a number of key elements that help secure the programme's success. However, one or more of the elements can be scaled back or made more financially feasible for nations with limited resource. Below are a number of recommendations:

- Venues can provide the free racket and equipment instead of the national association – this will create a bond with the venue and potentially increase conversion after the course, whilst dramatically reducing costs for the governing body
- Instead of a centralised online booking engine, venues can take phone bookings to remove the cost of building an online booking platform. The National Association website should simply list the venues that are taking part and provide contact details
- Start small with 10 key clubs taking part, 100 new children can begin playing tennis. Once the high conversion rates are known, it is likely more venues will buy into the initiative for year 2.

CONCLUSION

Tennis For Kids was an initiative that addressed grass roots participation by capitalising on the success at the top end of the game. Through close collaboration with the coaching workforce, a new generation of children experienced tennis under expert guidance of qualified coaches. It is hoped that the campaign will continue to inject a new wave of children into tennis each year, to ensure lifelong participants in the game.

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Galaxie Tennis: A case study

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ITF Coaching and Sport Science Review 2017; 72 (25): 26 -28

ABSTRACT

Tennis teaching, like all teaching, has evolved considerably since the 1970s, a time when it was not uncommon to see up to twenty players, children or adults, on the same tennis court in front of an instructor, "shadowing" tennis strokes without ever hitting a ball or playing rallies with a partner. Gradually, the idea that technique is only a means to an end, the game of tennis itself, has gained ground. Now, in most tennis schools around the world, one can see children "playing tennis" from the very first sessions. This goes hand in hand with the evolution of society and the "democratic", individual-oriented, empathic and interactive teaching style (Reid, Crespo, 2009), which is now prevalent in sports teaching.

Key words: Development, game and matches, skill acquisition.

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Article received: 15 May 2017 Article accepted: 20 Jul 2017

INTRODUCTION

Origins of the "Galaxie" programme

In 2014, the French Tennis Federation (FFT) launched a brand-new tennis school programme called "Galaxie Tennis". The goal of the programme is to retain children in clubs and encourage them to play competitive tennis, while its logo is an evocation of the game, the competition and the speed of the game.



Figure 1: Lou, Zoé, Arthur and Hugo are the four characters that represent the different age groups.

The concept is very similar to the ITF's "Tennis Play and Stay" programme. In order to be aligned with the ITF, the FFT decided to keep the Red, Orange, Green and Yellow stages which give an indication of the child's progress. All these elements are included in the teacher's booklet (2014).

Two stages were added to ensure acquisition of the initial technicaltactical elements:

- The White stage 8 m court; ball is rolled on the ground; no net.
- The Purple stage 11 m court; game is played with "Le Petit Tennis" balls using court width; 0.5 m net height.

The next formats are identical to the "Tennis Play and Stay" ones:

- The Red stage Game is played in the service boxes using felt or foam balls; net is lowered as much as possible (maximum height of o.8 m).
- The Orange stage Game is played on an 18 m court with orange balls; o.8 m net height. It is worth noting that the FFT recommends the use of the entire width of the singles court.
- The Green stage Game is played on a 23.77 m court with green balls; standard net.

Each learning stage is characterised by tactical, technical and behavioural acquisitions.

These acquisitions are validated by the teacher during so-called "Game and Matches" days because game and opposition are the two factors that should serve as a guide to teachers' technical contributions to children. Organised as part of the tennis school programme, these "Game and Matches" one-day events are essential in many ways.

CHALLENGES

It's no secret that the FFT, like many other national tennis associations, has seen a decline in the number of its younger members for some years now. This situation can be explained by the following two factors:

- A low retention rate of youngsters in the tennis school programme: nationwide, only 63% of members aged 5-10 in 2015 renewed their membership in 2016. While some regions have a retention rate above 75%, others retain less than 45% of their members. Statistics relating to young girls are even more alarming than those relating to boys, since their retention is 10% lower.
- This decrease in membership renewals is no longer compensated by the recruitment of new youngsters. The "Galaxie Tennis" programme does not aim to solve all problems. However, we are convinced that retention of youngsters is inextricably linked to the progress they make and is therefore dependent on teaching quality. The "Galaxie Tennis" teaching philosophy is based on the appropriate use of the White, Purple, Red, Orange and Green courts. By "appropriate", we mean that equipment (balls and racquets) must be adapted to each court type. Furthermore, it is essential to stick to the skills that need to be acquired.

These skills are assessed during the five "Game and Matches" days, which are dedicated to matchplay and assessment; these one-day events take place as part of the tennis school programme during regularly scheduled sessions with the participation of students from the same group.

OVERVIEW OF THE "GAME AND MATCHES" DAYS

• These events create a favourable environment for the introduction of children to competition. Depending on their level, they learn to recognise the difference between a ball that is "in" and a ball that is "out", and then how to count points, play a tie-break, and so on. But the main purpose of these one-

day events is to give children the opportunity to play several short matches and compete with others.

- These days serve to highlight the skills acquired during the teaching cycle that just ended, and empower young players, encouraging them to keep improving. This way, the cycle (White, Purple, Red, Orange or Green) can be validated.
- They also enable children to be ranked according to national standards; these children can then take part in workshops organised with girls and boys of similar level or in official competitions, starting from the Orange stage.
- All children receive from their teacher a passport that they will keep throughout their "Galaxie" experience, from the White court to the Green court. The teacher fills in the passport by selecting the different skills acquired at the conclusion of each "Game and Matches" day. Every time a child progresses to the next stage, the person in charge at the club records this in the national tennis club management system.

Careful teaching, matchplay, skill assessment, and the passport system are key components of the programme. If the club strictly follows the "Galaxie" principles, children and their parents will join in. Several studies have shown that friendly competition, when introduced properly, is the best way to motivate children to pursue an activity. A fun and early introduction to matchplay makes the transition to competition smoother and easier for children. This is especially true with young girls who usually don't like comparing themselves to their friends (Marc Renoult, 2014).

Children advance to the next stage when the skills required in the current stage have been validated.

Below are examples of suggested match situations that help coaches validate if the necessary skills have been developed:

White stage

8 m COURT / White inflatable ball rolled on the floor/ Middle of the court is visible on the ground.

First to 3 goals / Maximum duration: 5 min.

Purple stage

11 m COURT / Purple "Le Petit Tennis" ball / Overhead first serve / Alternate serving.

First to 7 points / Maximum match duration: 9 min.

Red stage

12.8 m court (service boxes) / Red felt or foam ball.

Singles play – 2 courts side by side: 4 players on a half court / 2 umpires / 1 tie-break / Maximum match duration: 10 min.

Doubles play – 1 court / 4 players / 1 umpire / 2 tie-breaks / At least 3 rotations / Minimum of 2 matches per team.

Orange stage

18 m court / Orange ball.

Singles play — First to 2 games: deciding point at deuce; tie-break at 1-1.

Maximum match duration: 15 min.

Doubles play - 1 court (no tramlines).

First to 2 games: deciding point at deuce; tie-break at 1-1.

3 rotations of 15 min. each.



Green stage

23.77 m COURT / Green ball.

Singles play – Players are responsible for making the calls / 1-set matches: first to 4 games / deciding point at deuce / tie-break at 3-3.

Doubles play -1 court with no tramlines / players are responsible for making the calls / 2 sets of 4 games / deciding point at deuce / tie-break at 3-3.

At each stage, the tennis coach checks if the child has developed the necessary skills in the following four fields:

- Behaviour
- Rules and scoring
- Tactical elements
- Technical elements

CONCLUSION

Tennis development depends on the ability to retain children after they join a club. The atmosphere created by the club managers and the quality of the facilities will of course contribute to the fun those children will have spending long hours with friends, but the key to developing a long-lasting interest for the game will always be the feeling of improving and turning into a "real" tennis player. The early introduction to matchplay plays down the importance of competition. Playing many matches with friends from the same group and, later on, from the same tennis school, gives young players the opportunity to see their progress and compete with others without feeling too much stress.

With the "Game and Matches" concept, it is possible to give relevance to continuous technical learning throughout the year. The more skilled children and those who are natural-born competitors quickly stand out from the others during those one-day events and eventually join training centres that suit their needs.

Other children, as we have noticed, understand the importance of what they learn and progress at their own pace playing a game style that is right for them.

Below are descriptions of the skills that children need to develop to advance to the next stage.

		WHITE	PURPLE	RED	ORANGE	GREEN
	TR		STAGE TO THE NEXT: CI I acquired on a court m			
BEHAVIOUR		Shake the opponent's (and umpire's) hand at the end of the match	Call balls "out" and the score aloud		Manage potential disputes with the opponent	Respect the opponent and maintain an appropriate behaviour at all times
RULES AND SCORING		Wait for the other player to be ready before starting the point Take turns starting	Identify the difference between a ball that is "in" and a ball that is "out" Follow and	Play a tie-break	Count points in "game" mode	Apply the rules independently
		points	remember the score			
		Get in position at the start of the point	Hit several shots successively	Move the opponent around	Attack by playing faster	Use his best shot
		Hit the ball to where the opponent is not		Make volleys	Defend by slowing down the game	
		Recover court position			Use different spins	
TACTICAL ELEMENTS					Hit the 1" serve with more speed	
					Be aggressive on the 2 rd shot	
					Get in position at the start of the point in singles	
					Get in position at the start of the point in doubles	Poach in doubles
	Service	es (1	Adopt the right stance	Serve using the trophy position	Serve with slice	Hit slice or topspir 2 nd serves
	Service		Hit the ball overhead	Maintain balance		
	2	Hold the racquet at the end of the handle	Assume a ready position on the service return with the free hand on the throat of the racquet	Hold the racquet with both hands between shots	Assume a dynamic ready position with relaxed shoulders and arms	
		Hold the racquet with both hands at the start of the point		Differentiate FH and BH grips		Follow through th
TECHNICAL ELEMENTS		Play forehands and backhands using both sides of the racquet face	Hit the ball in front of the body on the forehand	Prepare the FH shot with the racquet head above the hand		shot
		Hit both one- and two-handed backhands	Hit the ball in front of the body on the backhand	Prepare the BH shot with the racquet head above the hand		
	Net play			Hit the ball in front	Hit the ball in front while moving forward	
	Footwork	Adjust to the	Hit while	Remain dynamic	Δ	Accelerate / decelerate
		incoming ball	maintaining stability	between shots	Slide on clay Recover balance / Be ready for the next shot	

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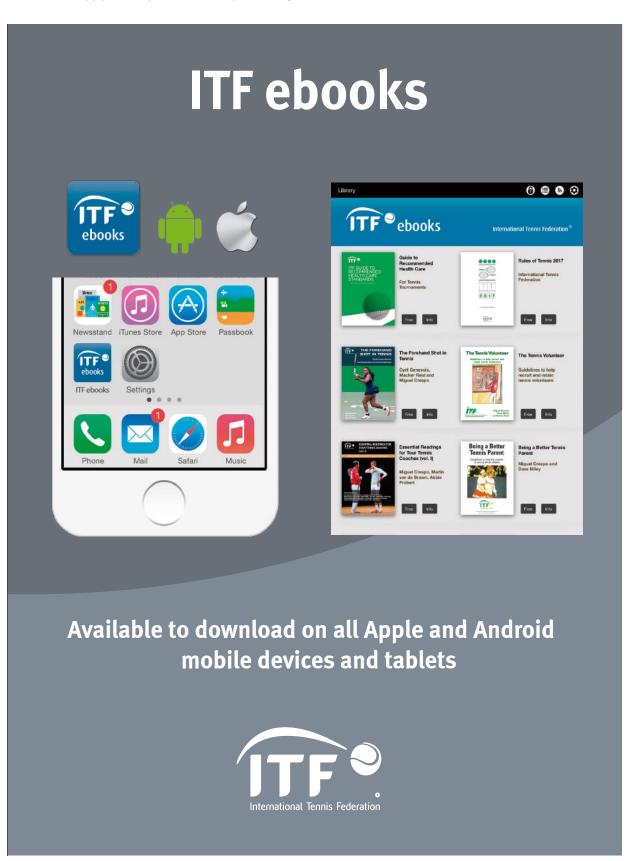


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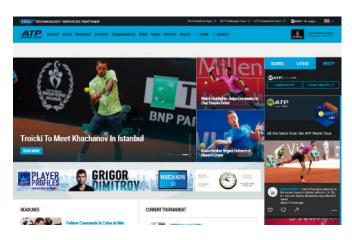
















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International Tennis Federation, Ltd. Development and Coaching Department. Tel./Fax. 34 96 3486190 e-mail: coaching@itftennis.com Address: Avda. Tirso de Molina, 21, 6º - 21, 46015, Valencia (España)

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Foto Creditos: Gabriel Rossi, Paul Zimmer, Sergio Carmona, Mick Elmore, ITF

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