<table>
<thead>
<tr>
<th>Pg.</th>
<th>Title / Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Editorial</td>
</tr>
</tbody>
</table>
| 3   | Youth tennis – A medical overview  
Brian Hainline (USA) |
| 6   | Observed teaching styles of junior development and club professional tennis coaches in Australia  
Mitchell Hewitt & Kenneth Edwards (AUS) |
| 9   | Travelling to tournaments: Guidelines for coaches and players  
Babette Pluim, Claudia Smit, Dorian Driessen, Sandy Oskam & Charlotte van der Heijden (NED) |
| 12  | The great opportunity of university tennis in the USA  
Gonzalo Corrales (SPA) |
| 15  | Talent identification and development – The important links between research, systems, parents and coaches  
Anne Pankhurst (UK) |
| 17  | Coaching children with autism: Insights from Australian coaches  
Janet Young (AUS) |
| 20  | Psychological variables that impact the performance of junior tennis players  
Bernardino J. Sánchez (SPA) |
| 22  | Using apps to improve coaching: The Tennis Australia Technique App  
Geoff Quinlan (AUS) |
| 25  | Exercises to learn and correct the serve  
Daria Kopsic (ARG) |
| 28  | Recommended books  
Editors |
| 30  | Recommended web links  
Editors |
| 31  | General Guidelines for Submitting Articles to ITF Coaching & Sport Science Review  
Editors |
Welcome to Issue 59 of the ITF Coaching & Sport Science Review.

The main focus of this edition of CSSR is junior tennis. The articles range from medical and travel advice, obtaining scholarships in the US, to psychological variables and talent identification in young players.

Other topics in this issue include coaching children with autism, teaching styles, serve correction and information on an exciting new tennis app.

Since the launch of CSSR in English in 1992, the ITF has published over 560 articles from contributors of more than 35 different nationalities. Today the review is produced 3 times per year in the 3 official ITF languages of English, Spanish and French and made available free of charge on the ITF coaching web at http://www.itftennis.com/coaching/sportsscience.

The 2012 launch of, ‘Biomechanics for Advanced Tennis’ as an e-book has proven to be very successful in the new electronic format. Interested readers can purchase their copy at: http://www.amazon.es/ITF-Biomechanics-Advanced-Tennis-ebook/dp/B00A79U7MK

The ITF Tennis iCoach website remains at the forefront of online coach education, with up to date and current research available to coaches across the world. For just $30 per year you can keep up to date with then most current tennis specific coaching information. Please click on the following link for a tour of the site. www.tennisicoach.com

In late 2013, the Tennis iCoach will be re-launched with mobile and tablet PC support on both Android and Apple devices. Version 3.0 of the site will also offer HD quality video, a new navigation and search system, as well as a range of new features that will enhance the user engagement and learning experience for users. The launch is set for autumn 2013 and will be officially released at the Worldwide conference in Mexico.

The ITF is pleased to announce that the 2013 ITF Worldwide Coaches Conference by BNP Paribas will take place in Cancun, Mexico, from 5 to 9 November. The event is being organised by the ITF in conjunction with the Federación Mexicana de Tenis (FMT) and COTECC at the Iberostar Cancun resort. The Iberostar Cancun is a luxurious 5-star all-inclusive complex located on one of the finest beaches in Cancun, Mexico.

The theme of this year's Conference is ‘The Long-term Development of a High Performance Player’. The Conference will have presentations related to four distinct ages of player development:

1. 10 & under (Building phase)
2. 11 - 14 years (Development phase)
3. 15 - 18 years (Junior phase)
4. 19 - 23 years (Transition to Professional phase).

For more information on this prestigious event please go to: http://en.coaching.itftennis.com/conferences/worldwide/2013-conference.aspx

To see the summary video from the 2011 ITF Worldwide Coaches Conference by BNP Paribas in Egypt, please go to: http://www.youtube.com/watch?v=dOGN_oUTxug

The ITF has launched the official Tennis Xpress promotional video following the global launch of the Tennis Xpress programme during the 3rd Tennis Play and Stay seminar at the LTA’s National Tennis Centre in London in November 2012. You can watch the video by clicking the following link.


Tennis Xpress is an easy, active and fun coaching programme for starter adults and recommended by the ITF as the best way to learn the game. Designed as a nine-hour course over six weeks for clubs and tennis facilities, Tennis Xpress is centred on the use of slower Green balls (25% slower) and Orange balls (50% slower) to ensure that players quickly learn the rules of tennis, and the basic techniques and tactics of tennis, in an active way. Tennis Xpress is a supporting programme of the ITF Tennis Play and Stay campaign.

We hope that you will find this 59th edition of the Coaching and Sport Science Review informative and that it will allow coaches across the world to build on and develop their coaching knowledge and to be more effective in their work as coaches. We also hope that you will continue to make use of all the other coaching resources provided by the ITF which can be viewed on the coaching webpage:

ABSTRACT
Diverse learning conditions and experiences are often created by employing different teaching styles and tennis coaches need to purposefully implement a range of teaching styles. This paper presents the findings of research completed on the observed teaching styles of 12 tennis coaches in Australia using Mosston and Ashworth’s Spectrum of Teaching Styles (2008). The 12 coaches were selected after completing a survey questionnaire about teaching styles and indicating their willingness to participate in systematic observations of their instructional practices. Results indicate that Junior Development and Club Professional tennis coaches commonly use two teaching styles (Command Style-A and Practice Style-B). These teaching styles share common and complimentary pedagogical principles with direct instruction guidelines whereby the coach is in control of what the students are learning in addition to how and why they are learning it.

Key words: teaching styles, development, coaching

INTRODUCTION
The objective of teaching or coaching is to connect learners in consequential goal-orientated activities with the aim of achieving instructional outcomes specific to an individual lesson or group of lessons (Mosston & Ashworth, 2008; Rink, 2002). The manner which tennis coaches organise and configure practice, deliver information and offer feedback has been represented by numerous terms including; strategies, styles, approaches, frameworks, processes and methods. This paper refers to the term teaching styles. According to Ashworth a teaching style can be defined as,

A plan of action that defines the specific decision interaction of the teacher or coach and the learner for the purpose of leading to the development of specific objectives in subject matter and behavior (Ashworth, personal communication, March 2, 2010).

Previous research has revealed that Australian tennis coaches believe they use a range of teaching styles during their coaching sessions throughout the year (Hewitt & Edwards, 2011). Literature has also submitted, however, that teachers have a tendency to overestimate the frequency with which they report to using teaching styles (Cothran et al., 2006; Mosston & Ashworth, 2008). It has been suggested that the instructional practices available to tennis coaches have been confused by the presence of various terms and coaching language (Reid et al, 2007).

The importance of coaches basing their practice on a theoretical framework has been well documented in the literature (Lyle, 2002; Mosston & Ashworth, 2008). A theoretical framework offers clarity around the purpose and arrangement of activities that promote increased student interest, cooperation, and managerial effectiveness and more legitimate assessments of learning (Metzler, 2000; Mosston & Ashworth, 2008).

Mosston and Ashworth’s Spectrum of Teaching Styles
Mosston and Ashworth’s Spectrum of Teaching Styles (Mosston & Ashworth, 2008) describes a unified theoretical framework of teaching where an array of teaching styles have been arranged on a continuum. The structure of The Spectrum of Teaching Styles stems from the initial premise that “teaching is governed by a single unifying process: decision making” (Mosston & Ashworth, 2008, p.8). Every deliberate act of teaching is a result of a previous decision. The latest version of The Spectrum of Teaching Styles consists of 11 different teaching styles (Mosston & Ashworth, 2008) (See Table 1).
production (discovery) of new knowledge. This paper outlines research that has been undertaken to address the lack of literature about the teaching styles of Australian tennis coaches.

RESEARCH METHOD
The coaches in this study were selected for detailed observations after completing a survey questionnaire on teaching styles and indicating their willingness to have their lessons recorded. Systematic observations were then used to identify the teaching styles that the coaches employ during lessons. Junior Development (JD) and Club Professional (CP) coaches were observed and videotaped during three tennis lessons of 30 minutes duration with four players. The lessons were performed during the coaches’ formal certification coaching courses conducted by Tennis Australia (TA). In order to code and record the coaches’ teaching behaviours during lessons, the Instrument For Identifying Teaching Styles (IFITS) (2004) coding sheet was used in conjunction with Ashworth’s Identification of Classroom Teaching Learning Styles (2004). The coding procedure employed in using IFITS consisted of a ten second observation proceeded by a ten second recording of this observation. In other words, every 20 seconds the coder using IFITS made a decision regarding which teaching style the coach was using or whether they were engaged in a class management activity. Class management is defined as any activity that is not directly related to instruction. All of the 36 videotaped lessons were coded by the researcher and a second trained individual. To clarify any queries during the coding process, Prof. Sara Ashworth provided extensive assistance and advice.

Participants and Setting
Participants for this study were recruited from earlier research by Hewitt and Edwards (2011) who conducted a survey questionnaire on the self-identified teaching styles of 208 tennis coaches in Australia. From the 208 coaches, 56 expressed an interest in having their lessons videotaped and coded. The characteristics of the final observation group were male and female, coaches with different coaching qualifications and experiences and from states.

RESULTS
Table 2 shows the participant breakdown of the range of teaching styles observed during the coaches’ three by 30 minute coaching lessons (n=36).

<table>
<thead>
<tr>
<th>PARTICIPANTS</th>
<th>OBSERVED TEACHING STYLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior Development 1, 2, 5</td>
<td>A, B</td>
</tr>
<tr>
<td>Club Professional 8</td>
<td>A</td>
</tr>
<tr>
<td>Junior Development 3, 4, 6</td>
<td>B</td>
</tr>
<tr>
<td>Club Professional 7, 9, 10, 11, 12</td>
<td>B</td>
</tr>
</tbody>
</table>

Table 2: Participant breakdown of the range of teaching styles observed being employed during the coaches’ three by 30 minute coaching lessons (n=36).

The coaches in this study were observed implementing two teaching styles. These included, Practice Style-B and Command Style-A. Practice Style-B was employed by all 12 participants, while Command Style-A was used by eight of the coaches. A depiction of the breakdown of total time (%) that the 12 participants’ employed these teaching styles during their three 30 minute coaching lessons is displayed in Table 3.

<table>
<thead>
<tr>
<th>TEACHING STYLE</th>
<th>PERCENTAGE OF TIME THAT TEACHING STYLES OBSERVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command Style-A</td>
<td>10.58%</td>
</tr>
<tr>
<td>Practice Style-B</td>
<td>84.25%</td>
</tr>
<tr>
<td>Styles C-K</td>
<td>0%</td>
</tr>
<tr>
<td>Management</td>
<td>5.15%</td>
</tr>
</tbody>
</table>

Table 3: The breakdown of total time (%) the 12 participants were observed using teaching styles.

From the 36 lessons that were observed, Practice Style-B was used 84.25% of the time while Command Style-A was used 10.58% of the time. No other teaching styles were observed.

DISCUSSION
The results indicate that tennis coaches in this study employed two teaching styles (Command Style-A and Practice Style-B) when instructing tennis. Practice Style-B was used in 84.25% of lesson time. The use of these teaching styles strongly correlate with direct instruction guidelines where the coach makes decisions about student learning and how and why they are learning. Australian tennis coach accreditation manuals (Tennis Australia Learner Guide, 2010; Crespo & Reid, 2009) recommend that tennis coaches should combine the use of direct and discovery teaching styles. The teaching styles observed in this study are not necessarily compatible with the favoured teaching processes identified in these publications. Coaches should understand and purposefully implement a range of teaching styles to achieve various learning outcomes. No one teaching style encompasses all learning eventualities so an effective coach must possess the capability to change and combine teaching styles during lessons. Previous research has suggested that tennis coaches believe they use a range of teaching styles during coaching sessions throughout the year (Hewitt & Edwards, 2011). These results, however, suggest that there is a lack of congruency between the teaching styles that tennis coaches believe they use and what they actually use. Through an awareness of a range of teaching styles, coaches change, modify, or support their instruction to maximise their interactions with students.

CONCLUSION
This paper reported on the observed teaching styles of 12 tennis coaches in Australia using Mosston and Ashworth’s Spectrum of Teaching Styles (2008). The results from the systematic observations undertaken can assist in accurately identifying the instructional practices utilised by tennis coaches. Through an awareness of a range of teaching styles, coaches change, modify, or support their instruction to maximise their interactions with students.
when coaching tennis. These teaching styles were Command Style-A and Practice Style-B. The predominant teaching style was Practice Style-B. The findings from this study can be used in the design of coach education programs and professional development initiatives and may also extend relevance into sports coaching more broadly. The information outlined in this paper is part of a doctoral study. Further research includes exploring the teaching and learning experiences called canopy designs that are located between each teaching style. Interviewing coaches to reveal insights into how they decide what teaching styles to use and when to use them has also been undertaken. It is anticipated that these findings will present coach education providers with valuable information about tennis coaching behaviour.

Notes:
1 The term teaching style is synonymous with coaching style in this paper.

REFERENCES
Tennis Australia (2010). Tennis Australia Learner Guide – Coaching: Apply coaching methods to meet the needs of intermediate to advanced tennis players.