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## Editorial

Issue 54 of ITF Coaching & Sport Science Review is a monographic edition which is devoted to "Coaches' Education". In preparing this issue we have collated articles from experts and national directors of coach education who are at the forefront of coaching methodology and practise and many of them in charge of coach education in their respective nations.

Articles within this issue include: "Coach education systems in Europe - a competencies comparison" and "Online resources for coaches' education" and "The role of sport science in coaches' education". In addition to these, readers will find a range of other articles that will serve to keep you up-to-date on developments within coach education around the world.

The preparations continue for the forthcoming 17th ITF Worldwide Coaches Conference 2011 by BNP Paribas. This year the conference takes place in the Port Ghalib Red Sea resort, Egypt, from Sunday 20th to Thursday 24th November.

### Confirmed speakers include:

Patrick McEnroe, Max de Vyllder, Mark Kovacs, Louis Cayer, Luis Bruguera, Antoni Girod, Álvaro Margets, Bruce Elliot, Machar Reid, Iván Molina, Luca Santilli, Dave Miley, Miguel Crespo, Doug MacCurdy.



This year the conference is an 'open registration' policy, allowing an unlimited representation of coaches from each nation to attend, subject to approval by the relevant national association. Registration remains open on the official conference website at [www.itfcoachesconference.com](http://www.itfcoachesconference.com). Here you will be able to register online, as well as gain important information on travel, visas, accommodation packages, speakers' biographies and much more. A tentative programme schedule is also available.

The "ITF Recognition of Coaches Education Systems of National Associations" is now fully underway. In 2009, both Spain and Australia's coach education structures were approved by the ITF. Presently in 2011, there are currently 10 more nations that are undertaking the process of approval. The goal of the recognition process is to ensure that coach education standards of ITF member nations are at least meeting the minimum standards necessary to protect and grow our sport that were established by the ITF Task Force on Coach Education and approved by the ITF coaches commission in 2008. More information and details surrounding the recognition scheme can be found in the relevant article within this issue.

The ITF Play and Stay Campaign continues to go from strength to strength. In addition to the continued work preparing to implement the new rule change for tennis10s, over the last few months, piloting has taken place for the new Adult Tennis Xpress program in 9 nations around the world including Australia, Great Britain and the US. The 10-hour program is an active and dynamic introduction to tennis for adults using the Orange and Green balls, ensuring that at the end of the 10 hours all of the players can play competitively. It is hoped to launch adult tennis Xpress in early 2012.

The new iCoach platform which was launched recently is proving a successful and welcome change. In addition to the enhanced usability, new content is being regularly released, with new Davis cup footage and tennis 10s drills coming shortly.

Finally, we hope that you continue to take advantage of this and other resources provided on the Coaching weblet ([www.itftennis.com/coaching](http://www.itftennis.com/coaching)) and that you enjoy this 54th issue of the ITF Coaching & Sport Science Review.

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# The role of the ITF Development programme in coach education

Dave Miley (ITF)

ITF Coaching and Sport Science Review 2011; 54 (19): 3 - 4

## ABSTRACT

*The purpose of this article is to outline the work the ITF is doing worldwide to help improve the quality of coaching worldwide. This article reviews three of the key areas of the ITF's coach education programme: 1) The ITF and its global involvement in coaching courses, 2) The importance of ITF Coaches Conferences- both Regional and Worldwide and 3) The Coach Education resources produced by the ITF.*

**Key words:** Coach education, ITF development programme

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## INTRODUCTION

Since its inception in the late 70's, the ITF Development Programme has continued to invest in the important area of Coaches Education globally. Recognising that many National Associations in developing tennis regions do not have a coach education programme in place, the ITF provides a range of support to help these federations to become self sufficient in coach education at national level and to put in place a quality certification system in their own language and ideally with its own qualified experts in charge.

This article will outline three of the main areas of the ITF's coach education programme.

1. Coaching Courses
2. Coaches Conferences
3. Coach Education Resources

## 1. COACHING COURSES:

### National Certification Courses

The ITF assists member nations in organising National Certification Courses for coaches utilising four different levels of ITF approved coaching syllabi:

- Play Tennis covering the coaching of starter players using the key elements of the Play & Stay Programme including the use of slower balls
- Coaching Beginner and Intermediate Players (Level 1)
- Coaching Advanced Players (Level 2)
- Coaching High Performance Players (Level 3)

Three of these coaching syllabi are now available in over 30 languages worldwide including English, French, Spanish, Portuguese, Arabic, Russian, Chinese, and Farsi with the aim of encouraging and assisting ITF member nations to implement a National Coaches Certification System.

The Coaching High Performance Players (Level III) is currently only available in English and Spanish. Ensuring that the materials for the courses are available in as many local languages as possible is an important part of the ITF's strategy and the syllabi and other educational material are now being used by over 100 nations worldwide to certify coaches.

It is important to emphasise that *the ITF does not certify coaches*. The ITF provides the recommended syllabus and when necessary international tutors to run the courses and to train the local tutors- but the certification obtained at the end of the course is a National Association certification.

The ITF began a project in 2009 to approve coach education systems under the control of National Federations. This project was established with the help and with the approval of a task force made up of experts/ coaching directors of some of the major tennis nations which helped the ITF to establish criteria and minimum standards for coach education systems. By the end of 2011, 10 countries will have ITF approval and by 2012 it is expected that 30+ of the most developed nations will be approved. It is intended to open the approval process to all nations by 2013 and that nations can then apply to be ITF approval based on the agreed criteria at Bronze: (self sufficient at Play Tennis and Level I) Silver: (Self sufficient at Level 2); Gold: (Self Sufficient at level 3).

In 2010, 74 courses were organised by the ITF including: fifteen Level 1 courses, ten Level 2 courses and nine Play Tennis courses, with 22 of the 74 courses being funded by Olympic Solidarity.



### Specific Theme/Short Courses

Specific Theme Courses (Short Courses) are usually completed over three days (20 hours) and include on-court and lecture room presentations. The goal of these courses is to provide coaches with the latest information on specific sport science and coaching topics. The courses currently in place cover play tennis, physical conditioning, psychological preparation, advanced biomechanics and working with female players.

### Tutors Courses

The ITF over the past years has begun to focus more on tutor training and with 5 regional tutor courses taking place in 2010. The ITF runs Tutors Courses to train potential national Play Tennis, Level 1 and Level

2 course tutors with the objective that National Associations can with their help become self sufficient and run courses independently of the ITF in the future. These courses cover not only coaching and sport science subjects from the syllabus, but also other important elements such as: presentation methods, assessment criteria and evaluation of competencies. The ITF is planning to hold more Tutor Courses and to establish a new course for the Directors of Coach Education to help train those experts who can then be overall in charge of the national programme.

## 2. COACHES CONFERENCES

### ITF Worldwide Coaches Conference

The ITF Worldwide Coaches Conference is held every two years and has become a unique international forum for high level coaches focusing on the development of high performance players. This five-day event features presentations on the most up-to-date tennis specific sport science and medical information and practical on-court technical and tactical coaching. The Conference usually attracts more than 500 coaches from 100 different nations. Previous editions have been hosted in Valencia (Spain), Asunción (Paraguay), Antalya (Turkey), Vilamoura (Portugal), Bangkok (Thailand), Miami (USA) and Casablanca (Morocco).

### ITF Regional Coaches Conferences

Regional Coaches Conferences are held biennially in Central America and the Caribbean, South America, Asia, Europe and Africa and provide an important and cost effective educational opportunity for the best coaches from these regions to be updated on the most recent coaching information and also to come together to discuss issues specific to their respective regions. 2010 saw an increase in the overall Regional Coaches Conference participation from 900 in 2008 to 1,050 in 2010.



## 3. COACHES EDUCATION RESOURCES:

### Books and written resources

The production and translation of ITF educational material is vital for the development of Coaches Education and books and manuals have been produced in many key languages. These resources are then used for the courses and are available for National association's to purchase at special discounts.

Other publications produced include monthly newsletter updates as well as the ITF CSSR- the world's only tennis specific sport science and coaching journal to be published in three languages.

### Web resources/Distance Learning

Since its launch in July 2004, the ITF Coaching website ([www.itftennis.com/coaching](http://www.itftennis.com/coaching)) has become an invaluable tool for thousands of coaches across the globe. Following the popularity of this website and the interest in it shown by coaches, the ITF started to invest in e-learning including on-line presentations, available for download, covering a wide range of tennis specific sports science topics. They also developed PowerPoint materials linked to the approved ITF syllabi which are now available to support the coaches' courses at all levels to view online.

Another web resource that has been part of the ITF development programme since 2007, is the world's premier digital coaching resource platform – the ITF Tennis iCoach. This web resource supports the continual education of the coaches in member nations by allowing for easy access at a small annual fee to the latest coaching information online. To date over 15,000 coaches from 185 countries have accessed the iCoach and make regular use of this resource. In addition to the latest drills, research articles and online presentations, a selection of the keynote presentations from the Regional and Worldwide Coaches Conferences are made available to view on [www.tennisicoach.com](http://www.tennisicoach.com). Through Tennis iCoach, coaches who are unable to attend a conference can benefit on line from the expertise and knowledge of many of the world's leading tennis coaching experts in player development, sport science and medicine, psychology, biomechanics and coaches education. We believe that distance learning will increasingly become more important in the future and we will continue to invest and improve the e-learning resources accordingly.

Much of the success of the ITF's coach education programme is a direct result of the co-operation we have with the top coaching experts from our member nations around the world who continue to support the ITF programme. The ITF coaches commission is made up of top coaching experts in Player Development and Coaches education and the commission meets twice per year and advises the ITF on matters related to coaching. It is important to recognise the great contribution the coaches commission members have and continue to make.

## CONCLUSION

Over the past 20 years, one of the most important objectives of the ITF has been to assist its member nations to improve the level of coaching and a number of successful initiatives and resources have been outlined in this article. The ITF recognise that whilst much progress has been made, there is still a lot of work to do and improvements to make. The ITF will therefore continue over the coming years to invest in coach education which we see as fundamental to the future growth of the game of tennis globally.

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# The role of sport science in coaching education

E. Paul Roetert & Paul Lubbers (USA)

ITF Coaching and Sport Science Review 2011; 54 (19): 5 - 6

## ABSTRACT

*This article discusses how in order for developing players to master the game of tennis, it has always been a careful blend of science and art. The article summarises early scientific approaches to coaching whilst also outlining modern day coaching methodology- whereby the ever present role of sport science has now become commonplace within modern day coach education.*

**Key words:** Coach education, sport science

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## INTRODUCTION

Playing the sport of modern tennis well involves both an artistic as well as a scientific approach. The artistic element of grace and magnificent shot making has to be augmented by proper technique and training methods. As early as 1964, Tony Trabert outlined in his chapter in Alan Tengrove's classic book "the Art of Tennis" the importance of proper equipment, tips for playing in the heat, injury prevention, proper conditioning and mental toughness.

Even earlier in 1925 Coleman Griffith, an educator known as the Father of Sport Psychology, wrote about the scientific approach to coaching by examining ideas related to the job of the coach: "In short the coach has a definite amount of time to spend, in exchange for time he wants to purchase the highest degree of skill time can buy. The highest degree of skill comes out of a knowledge of proper practice length, of practice periods, the proper distribution of practice periods, the advantage of learning by whole, rather than parts, the methods of presenting new material, the laws that govern increases and the amount that can be learned in a given time, the effect of attention on the rate of learning and the effects of learning and relearning, and the rate of forgetting." (Griffith, 1925 p. 1)

The same principles hold true for the field of coaching education today. Woodman (1993) described that the field of coaching while becoming more scientific and systematic, will essentially remain an art. He explains it as a mixture of scientific knowledge and empirical sport-specific information. The important thing is that effective and efficient learning occurs. Learning, according to Martens (2004) in his book 'Successful Coaching', is a relatively permanent improvement in performance as a result of practice. It may not be directly observable; rather it is inferred from changes in performance over time. Typically, the field of sport science follows and attempts to explain the different techniques and training methods. Scientific articles on tennis have increased dramatically over the years. In fact, several tennis-specific editions of scientific journals have been dedicated to tennis in recent years. This includes the British Journal of Sports Medicine (2006, 2007), the Journal of Science and Medicine in Sport (2003) and the Strength and Conditioning Journal (2009).

## COACHING STRUCTURE

The ITF recognized the importance of sport science in coaching by forming a coaches' commission. This commission recognized the difficulty facing coaches from many nations in obtaining tennis specific sport science material (1999). This effort has furthered and supported sport science related information for coaches through conferences, scientific manuscripts and tennis-specific articles in a variety of languages. It is recognized that each nation has its own culture, politics and traditions as it relates to a national coaching education strategy. In Europe, for example, a harmonization of standards has taken place based on the free movement of labor, allowing countries to recognize each others' standards, training and qualifications. Sue Campbell (1992,

1993) described a five level approach agreed upon by the European group. Training for sport coaches consists of:

1. Sport-specific knowledge: techniques, tactics and strategies of the sport
2. Performance related core knowledge: sport science, ethics/philosophy, pedagogy and management/vocational skills
3. Practical experience: considerable emphasis is placed on the practical experience gained
4. Mentoring: As Campbell further explained; the most difficult challenge concerns that of the Master Coach particularly as it relates to mentoring. Mentoring requires great skill, openness, and a willingness to share ideas – something that Master Coaches are not always prepared to do.

## COACHING EDUCATION AROUND THE WORLD

With the advent of the Olympic movement and the status of Tennis within it, Coaching Education has been thrust to the forefront. Many nations have established their own unique models of coach education and certification to ensure that those individuals working with a country's top young players are employing both current coaching practices and working with these players with a methodology and philosophy that is player centered where the health and well being of the athlete is first. This includes proper timing of competing, training and resting for optimal performance.



## TRAINING AND TECHNOLOGY

With the advantage of a sound theoretical base as well as the establishment of sound educational delivery systems, coaches around the world now are becoming more adept at developing long-term developmental programs. One of the most important aspects of becoming a good tennis player is the ability to design a proper training

program focusing on the long-term benefits, not just immediate results. Roetert and Ellenbecker (2009) explain that since tennis is a year-round sport, properly structuring training and competition into phases can maximize players' chances of peaking at the desired times.



Lubbers (2005) and Pankhurst (2006) spoke and wrote about phases of development in *The Progressive Development of a World Class Player*. The progressive development of a world-class player is a long-term process that research suggests takes a minimum of 10 years or 10,000 hours (Ericsson, 1999). Further research shows that world-class players go through distinct phases of talent development Bloom (1985) and Gibbons (1998).

Finally, the use of modern technology has also become more and more commonplace in the training of tennis players. Technology is used for disciplines such as biomechanical analysis (Elliot & Reid, 2009), physical training (Kovacs, 2009, Calvo, 2009) and coaching education (Lubbers, 2009).

## CONCLUSION

The bottom line is that principles of sport science can and should form the foundation for well-designed coaching education programs. A systematic design of training and competing will enhance the performance of players while staying injury free. Coaches who embrace this approach will ensure that players will be well-prepared to become the next generation of champions.

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# Coach education systems in Europe: A competencies comparison

Hrvoje Zmajic (ITF/Tennis Europe)

ITF Coaching and Sport Science Review 2011; 54 (19): 7 - 9

## ABSTRACT

*The following article outlines and compares coach education across Europe. It discusses trends towards coaching becoming a recognised profession in Europe. The article then compares job types within coaching with the competencies associated with those roles. In addition it looks at contact hours across different syllabi, and how they compare with recommended ITF syllabus load.*

**Key words:** coach education, competencies, cross-country comparison

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## INTRODUCTION

One of the key elements of players' success is undoubtedly the quality of coaching that players receive (Duffy, Crespo, Petrovic, 2010). It can be suggested therefore, that quality coaching is perhaps one of the key reasons as to why European players are currently dominating the ATP, WTA as well as ITF junior rankings (see ITF, 2011; ATP, 2011; WTA, 2011)

At present 45 out of the 49 European nations are running their own coach education programmes in their respective countries. Twenty three countries have developed independent coaches' education programmes, whilst eleven have their own programmes based on the ITF syllabi and ten are using the courses organized by the ITF for educating coaches.

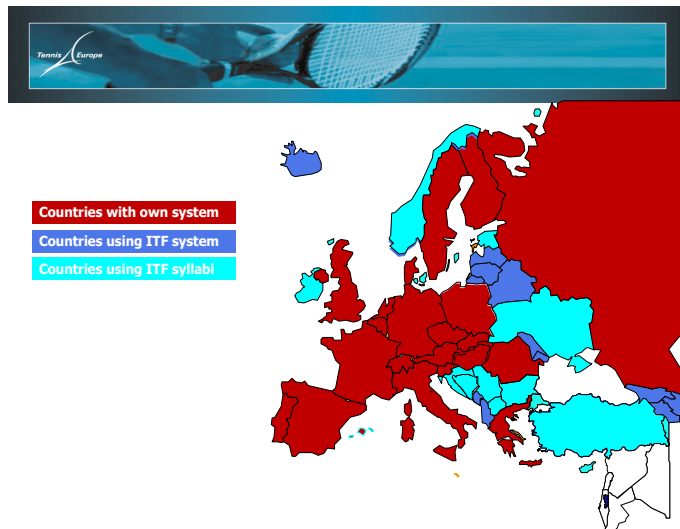


Figure 1. European nations by coach education programme.

## TOWARDS COACHING AS A PROFESSION

Since 2004, under the umbrella of the AEHESIS\* and EENSEE\*\* projects, the criteria and guidelines for coaches' education across different sports has been established. According to the Rio Major convention\*\*\* there are three standard occupations in sport: coaching beginners, intermediate and advanced players. (ENSSEE, 2008)

At present in Europe, there is a strong intention for defining coaching as a profession. The implication of this would be that the coaches' skills are defined and recognized by institutional authority with defined ethical standards and secured rights for all coaches (like social security etc.).

\* Aligning European Higher Education Structure In Sport

\*\* European Network of Sport Science, Education and Employment

\*\*\* Convention for the recognition of coaching competence and qualification

At the same time, when discussing coaching in tennis we should be aware that it includes volunteers, part-time and full-time paid coaches as well as parents.

By analysing the available data from 42 European countries we have identified 6 typical working places for coaches:

- coaching in clubs
- coaching in a (private) tennis school
- coaching in 'big' clubs
- coaching in regional centres
- coaching as National coaches
- working as Club directors

## COACH COMPETENCIES AND JOB TYPE

Despite the variety of different labels used in different countries, it is possible to recognise a lot of similarities in coaches' competencies that are expected from coaches working in similar places of work with similar coaching tasks.

Figure 2. depicts that a club coach and a coach in a tennis school is expected to be able to work with beginners and young players.

*According to the ITF a beginner tennis player is defined as the one who has just been introduced to the game, and/or has a limited playing and competitive experience. (ITN 10-8)*

*An intermediate player is defined as the one who has certain playing and competitive experience and a regular and consistent level of play. (ITN 7-4)*

*An advanced player is defined as the one who has an extensive playing and competitive experience and a solid and proficient level of play. (ITN 3-1)*

Their main task is to promote the game as well as identify talented kids. Coaches in big clubs or regional centres should (in addition to working competently with beginner and intermediate players) be also able to work with intermediate players as well as performance players (18U) with the main task to develop players' performance. Finally, national coaches and club directors should be able to work with advanced juniors as well as high performance players- their main task can be defined as 'performance management'.



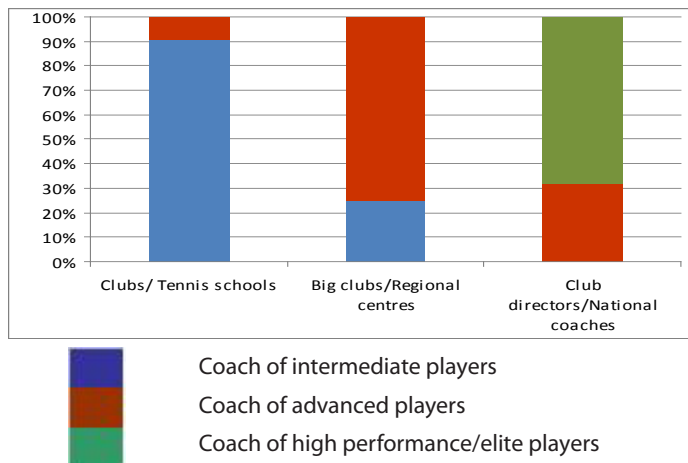


Figure 2. Place of work vs. ages of players that a coach should be able to work with (%).

By comparing education programmes in different countries we may conclude that in principle, the programmes are aimed for educating coaches for standard occupations: coach of beginners (kids), intermediate players (14U talented/performance) and coaches of advanced players (high performance).

There are however differences across some countries. Within some syllabi there are 2 or even 3 courses (levels) aimed for educating coaches for one standard occupation. For example in Ireland education of coaches working with beginners and kids is divided in 3 levels: assistant for 8U, assistant for 9U and Level 1 coach who is able to work with kids up to the 11 years of age.

Other examples include the Belgium system, which provides different courses for coaches working with intermediate players and players' up to 12 years of age. Also, the German system has two educational options for coaches working with high performance players: 'A licence' and 'Diploma coach' (for more details please see the European Coaches' Education Comparison chart; [www.tenniseurope.org/page.aspx?id=15946](http://www.tenniseurope.org/page.aspx?id=15946))

## CONTACT HOURS

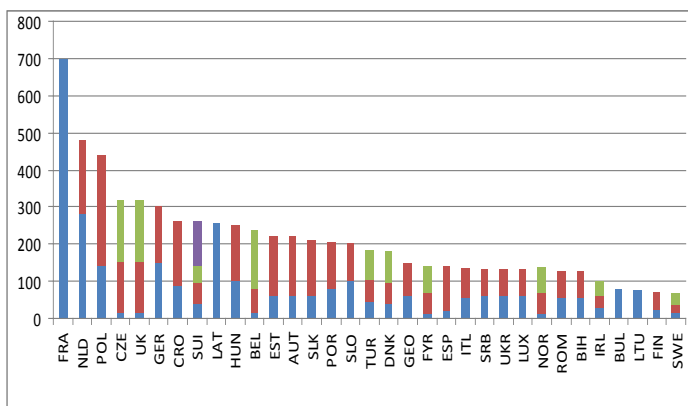


Figure 3. Contact hours across European nations for respective levels.

In general, it can be said that the systems with a lower number of contact hours per Course (70 or less) tend to have more levels, whilst systems with a higher number of hours, for example France or Holland, have fewer levels.

## Contact hours vs. independence

Independence in this article refers to coaching independently on court, without need for supervision. By comparing the teaching load (how many contact hours lead to independent tennis coaching) from different European countries we can see that in 10% of countries, coaches have to attend less than 100 contact hours with a tutor in order

to work independently in a club or tennis school. Only one country allows coaches to work independently with less than 74 hours contact (the minimum recommended by the ITF).

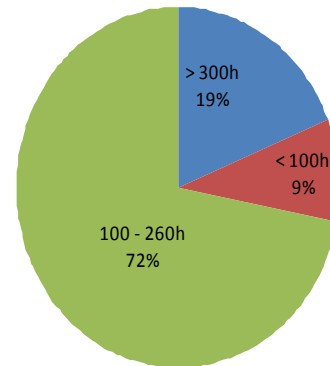


Figure 4. Contact load leading to independent coaching (hrs).

In 71% of the countries, coaches attend between 100 and 260 contact hours whilst in six countries (19%) the quota for independency is over 300 hours. Some variety in the number of hours can be connected with the difference in defining internship and dividing general science from 'tennis specific' content. In addition, some countries define intermediate players as club players, whilst in other countries intermediate players refer to young talented players until the age of 12 or even 14 years of age.

## CONCLUSIONS AND FUTURE DIRECTIONS IN COACH EDUCATION

Presented data indicate that across Europe there is agreement that on club level, coaches should be able to coach beginners, kids and intermediate players. Fewer similarities can be found in educating coaches for working with advanced and elite players as it relates to the national systems for developing performance players. At present in East Europe and the Balkan countries, players' development is predominantly driven by parents and private sponsors. In the countries like Germany, Belgium or Holland players' development is depending on the combination of the work done in clubs and regional/national centres. To take France as another example, it has an integrated system that includes clubs, leagues, regional and national centre in one pyramid structure.

In the majority of the CE systems, the levels of coaches' education are following players' development pathway from beginners to high performance players. Just a few national systems around the world are providing different education paths for coaches of participation and performance players (e.g., UK, Canada...).

European countries are continuously developing their coaches' education systems by implementing innovations like competency based education. Furthermore, we are seeing a move toward integrating Sporting Universities and Federation based education programmes which enables optimal inclusion of practical experience and scientific knowledge in the education process. This is very important as coaching expertise is the foundation for recognizing coaching as a profession by Government authorities and the broader community. Despite some differences in Coaches' education systems, generated by the size of the country, Federation structure and Governments' regulations, coaches need the same key competencies for planning, organizing and conducting practice and competitions for the same level of players.

Mobility of coaches is already common in Europe, especially between the members of European Union. At the same time, tennis is global sport and we are witnessing that more and more coaches are looking for working opportunities around the world, for example in China, Australia or the United States and Canada.



In order to facilitate easier movement of coaches around the world there is increasing need for establishing tools for recognizing coaching competencies and qualifications between the countries. In this regard, the standards established by the ITF are serving as the guidelines for defining key coaches' competencies for working with beginners, intermediate and advanced players as well as developing National coaches' education systems in general.

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# Assessment in competency based courses

Frank van Fraayenhoven (KNLTB, The Netherlands)

ITF Coaching and Sport Science Review 2011; 54 (19): 10 - 11

## ABSTRACT

*The present article uses the Netherlands as a case study for outlining assessment in competency based coaches' courses. The article outlines the traditional method of coach education training. It then discusses the new aspects and benefits of competency based training.*

**Key words:** coach education, competencies, assessment, Netherlands

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## INTRODUCTION

Having been involved in Coaches' education for over 30 years for the Netherlands, I have assessed hundreds of coaches at our three levels of coaches' education. Two years ago, the Netherlands lawn tennis association (KNLTB) started to assess coaches in a different way, related to competency based learning. In this article we will look at the differences.

### Towards competency based training

Since 2000, the Netherlands has aspired to be one of the world's top ten countries for sport. This has resulted in better facilities, funding, financial support and coaching. During this decade, coaching in the Netherlands has become more standardised across all sports, including tennis. Coach education and training has begun to be based around a competency based curriculum (see Van Klooster & Roemers 2011).

### Elements to competency based training (Norton, 1987; as cited by Sullivan, 1995)

1) Competencies to be achieved are carefully identified, verified and made public in advance.

2) Criteria to be used in assessing achievement and the conditions under which achievement will be assessed are explicitly stated and made public in advance.

3) The instructional program provides for the individual development and evaluation of each of the competencies specified.

4) Assessment of competency takes the participant's knowledge and attitudes into account but requires actual performance of the competency as the primary source of evidence.

5) Participants progress through the instructional program at their own rate by demonstrating the attainment of the specified competencies.

### Competency based learning models- a definition:

*A competency can be defined as a set of knowledge, skills and attitudes. Competencies are skills performed to a specific standard under specific conditions, where "A skill refers to a task or group of tasks performed to a pre-defined proficiency, often using motor functions and typically requiring the manipulation of instruments and equipment" (Sullivan, 1995, p1). In a competency based training system, progression and improvement is the mastery of specific knowledge and skills, and is learner-centred.*

staggering. On a scale from one (lowest mark) to ten (highest mark) many times a 3, 4 or 5 appeared on the list; meaning the result was 'not good enough' and less than 20 % of the candidates had passed the exam.

Throughout the years, the courses, the tutoring and the demands to be placed on coaches became more appropriate and clear cut. However, the marks awarded to coaches taking such exams have always come under pressure because of alleged subjectiveness. In a famous Dutch book, 'Vijven en zessen' ('fives and sixes'), the mathematician and psychologist De Groot (1966) explained this subjectiveness- or at least the likeliness of subjectivity in exams.

Some of the dangers when taking exams: the teacher, also administering the exams:

- expects reproduction of the contents of all the lessons ("I presented/ dealt with it, so they should know");
- forgets his/her own level of knowledge when at the same age of the candidate;
- expects too much experience (while experience is in contradiction with the first stages of learning);
- includes his/her own development in the actual demands;
- forgets about nervousness of candidates.

In my experiences of over 30 years in taking 'old style' exams, I can remember many discussions about marks - being too low or too high - between candidates, tutors and examiners. Very often calculation (adding, dividing and rounding off) would decide on the final result. In our coaches education system we always were honest and clear and we made sure to think of the importance and value of the result for concerning candidates. We were lucky to work for many years with the same team of tutors/examiners; so that the 'norms' could stay constant.

### A NEW APPROACH TO ASSESSMENT

In competency based learning (CBL) subjectivity has been minimized, marks have become less important, the value of isolated theoretical knowledge has diminished and candidates determine themselves when they are ready to pass the exam. Our task (as conductors of coaches' education) has been to formulate our demands in clear, concrete and observable behavior. This clear description of observable behavior makes it possible for the candidate to work specifically on those demands. Knowing what assessors demand from you makes it easier to prepare for that. If the criteria are well described, there is less room for subjective interpretation. Take two competencies for example, one well described and one not so well described: 'the candidate gives a good example' versus 'the candidate demonstrates the stroke at least two times, facing the player(s) and making sure the players can see the hitting shoulder, the contact point and the result of the ball'. The first description leaves ample room for interpretation or subjectivity.

### COACH EDUCATION FROM THE BEGINNING

The KNLTB, the Netherlands's governing body for tennis, was founded in 1899. The Dutch Tennis Coaches Association was later founded in 1929 and is still the oldest 'sports union' in the Netherlands. Coaches' education started with ball-boys who, after several years of observing and listening, gradually started to feed balls, act as sparring partners and teach. The oldest list on record with results of coaches' exams dates from 1948. Some of the older and most experienced tennis teachers administered exams to young novice teachers. The results were

The assessor could say: "I did not like that," "he should have done some more" or "he could have taken a better position".

The second (and longer) description leaves far less room for interpretation. The assessor should observe the demonstration of the candidate and decide on "yes, it meets the description" or "no, the demonstration did not cover the description".

Producing a clear list with all the criteria is a time consuming task; it is not easy to write down everything you want the candidate to master and show. The positive aspect of course is that producing a clear list with criteria is that assessments will be much more objective. With that, assessors also start to meet other important criteria for proper assessments: next to objective, assessments should be independent, trustworthy and valid. This means it should never give different results with different assessors and/or at different locations. Furthermore, the assessor cannot be involved with the candidate in any other role (tutor, learning facilitator, mentor).

A list of coaches' competencies has been described on different levels, making it possible to differentiate between starting coaches and experienced coaches. The ITF produced papers with ready to use competencies. In this way all countries with the objective to improve coaches' education can benefit from those documents.

## CONCLUSION

As previously stated, a competency has been defined as a combination of knowledge, skills and attitudes. With the new system of competency based training, the 'name' of the examiner has changed to assessor and the exam has become the assessment. Theoretical knowledge - by itself - is of no value for the final result, although the danger is that during an assessment only 'coincidental' knowledge is being tested and candidates 'could get away' with a low level of ready-knowledge.

*Competency based learning models in vocational fields most often employ assessment strategies that are based on units of analysis that are more meaningful and readily assessable. Competency-based models ultimately rely on measurable assessment. In other words, if a proposed competency cannot be described unambiguously and subsequently measured, it probably is not a competency (Vorhees, 2001).*

For this reason several institutes still maintain to take theoretical tests, just to make sure all theory has been processed. For



practical assessment, the use of tools such as video recordings of coaching behavior by the candidate makes it possible to self-assess the performance and/or to have an expert (experienced coach) evaluate and give useful feedback.

This allows for optimal preparation and improvement prior to the actual assessment. Coaches' education is still getting better and will be able to support countries to produce both more players

enjoying the game as well as better players representing the country in different levels of competition- through competency based training.

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# The ITF recognition of coaches education systems of National Associations

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## ABSTRACT

*This article presents one of the key projects of the ITF Coaches Education Programme: The ITF recognition of coaches education systems of National Associations (NAs). The goal of this project is to ensure all NAs are operating at the required standards in their coaches' education systems, as recognised by the ITF. The general guidelines for the recognition process as well as the specific features of each criteria are outlined and explained.*

**Key words:** coach education, competencies, recognition

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## INTRODUCTION

The ITF recognition of coaches education systems of National Associations recognises and approves coach education systems under the control of respective national tennis federations. ITF recognition is based on criteria and minimum standards for coaches' education as agreed by the ITF Coaches Commission (ITF, 2007).

The ultimate goal of the initiative is to globally assess and recognise nations at one of the three levels of the approval scheme; Gold, Silver and Bronze. Nations that are self-sufficient with basic criteria, up to the equivalent of the Level 1 ITF syllabi, will be awarded Level 1/ Bronze approval. A country with the criteria in place up to the equivalent of the ITF level 2 syllabi, will be awarded Level 2/ Silver approval. For nations demonstrating the highest levels in coach education, player development, officiating and sport science, these will be awarded the highest Level 3/ Gold approval. The overall objective of the Coach Education recognition scheme is ensuring that the coach education being performed in our member nations is at least meeting minimum standards necessary to protect and grow our sport as well as motivating and helping nations to become self sufficient in coach education.

## CRITERIA FOR RECOGNITION OF A COACH EDUCATION SYSTEM

A coach education system (offered by NAs) is comprised of a variety of components at a number of levels. Each level offers progression for a coach and reflects best practice and current educational needs.

The ITF Coaches Commission approved the following criteria for recognition.

**1. Have and run a Coaches Education Department inside the structure of the NA and have a Coaches and / or a Coaching – Sport Science Commission.** The role of a Coaches Education Department within the structure of the NA is a fundamental part of an ITF endorsed coach education system. There should be a clear vision and position within the overall structure of the NA. The existence of a group of experts in coaching, coach education and sport science that give advice to the CE Department in CE matters is of great importance to produce high-quality resources and courses.

**2. Have a Coaches Education Director together with a periodically trained staff that will include course and / or sport science tutors for the courses.** The NA should have qualified technical and administrative personnel and should have programme(s) of training for the personnel responsible for delivering, assessing and assuring the competence of coaches (tutors and evaluators).

**3. Have a competency based coaches' education programme/ structure.** The NA should award qualification(s) that fulfill an awarding function and should be responsible for ensuring the quality of the qualification over time. Coaches' education structure and format may be presented in a variety of forms, however, there are principles of good

practice regarding the intent, content and assessment of CE structures that will enhance quality coaching education. The CE system should show the complete CE system details from: number of levels, course load, format, syllabus, learning options, entry requirements, testing procedures, number of candidates, number of tutors, titles awarded, certification and quality control etc.



Coach education courses

**a) Course Structure:** Intensive: The course is delivered in a number of consecutive days / weeks (e.g. 10 consecutive days). Distributed: The course is delivered over a period of time (weeks / months) with breaks in between (e.g. 1 day a week / month, 1 week a month, 1 weekend a month). The distributed format is recommended since it allows the candidates to better assimilate the contents throughout the course.

**b) Course schedule:** The ITF recommendations are the following: No more than 2 consecutive hours on-court are recommended without a break. No more than 1 consecutive hour in the lecture room is recommended without a break. No more than 5-6 consecutive full course days (8 hours / day) without a day off are also recommended. No more than 7-8 hours a day are recommended.

**c) Course content delivery:** It can be: Unitary: The contents of the course are delivered by the same tutors / organisation (e.g. the Federation). Combined: The contents of the course are delivered by different tutors / organisations (e.g. the "tennis-specific" contents can be delivered by the Federation tutors whereas the "general-sport science" contents are delivered by tutors from Universities, etc.). The ITF recommendation is that the combined format is recommended since it allows the candidates to be exposed to more tutors with expertise in different sport science fields. The position of a head-tutor or course co-ordinator is highly recommended.



### Course delivery formats:

**a) Tutor-contact:** The course is delivered 100% by the tutor-contact procedure.

**b) Combined:** The course includes different delivery options apart from tutor contact, which include: *Pre-course study*: This can be done through distance learning (e-learning) modules, mentorship or other procedures. *During course practices / study*: This can be done through internships, task assignment, etc. *Post-course practice / assignment*: This can be done using the same procedures as above.

The ITF recommendation is that the combined format is recommended since it allows the candidates to perform a variety of tasks prior, during or after the course which will hopefully help them to more effectively acquire their competencies.

**The on-court / lecture room course ratio:** The ITF recommends an on-court to lecture room ratio of 60: 40. This is recommended in all courses to ensure a predominance of the practical component of the course. A 50:50 balance is the minimum ratio accepted for on-court content.

**Use of students for the course:** The ITF recommends that the use of students relating to the appropriate level for each course is strongly put in place to ensure candidates practice and are examined in ecologically valid conditions. Candidates bringing their own players to the course / assessments is also an option.

**Course loads:** ITF recommendation is that for certification courses, the following loads can be used as minimal guidelines: For all three respective levels- a coach of beginner/intermediate players, a coach of advanced players and a coach of high performance players: a minimum of 80-100 tutor contact hours are recommended (60 on-court and 40 lecture room approx.). The ITF recommends that the number of hours across courses should be equal. High quality coaching at each level is essential; therefore the associated courses at each level should carry equal load.

**4. Have a calendar / schedule, and run on a regular basis, a series of activities, courses, seminars, workshops, conferences, etc. for the coaches and other tennis professionals in the country.** This shows the ongoing activity of the CE system and is a clear indicator of proficiency towards the ITF endorsement of the coach education system of the NA.

**5. Have a coach licensing programme by which licensed coaches will have an annual professional license (coach card) to be allowed to coach tennis in the country.** The existence of a coach licensing scheme / programme that makes it mandatory for coaches to hold a valid and official coaching license is a fundamental part of an ITF endorsed coach education system. Licensed coaches should be provided with an annual professional coaching license (coach card) to be allowed to coach tennis in the country and attend continuous professional development events. The license may offer, among others, the following benefits: Possibility to coach, medical insurance, general insurance, legal assistance, clothing or racquet contracts, discount in coaching material and other benefits.

The procedure of license renewal can offer the following options: 1) Evidence of coaching activity: The coach has to show evidence that he is active in coaching. 2) Payment of professional coaching license fee. 3) Participation in the Professional Development Programme (PDP): The coach needs to take part in a certain number of continuous education activities (e.g. Refresher courses, conferences, tournaments, workshops, etc.), during a given period (e.g. 1-2 years) in order to renew the coaching license.

**6. Create or use a series of coaches' education resources (books, videos, DVDs, internet, etc. in their national language).** Generic and technical learning resources should be available to candidates throughout courses. Such resources need not all be produced by the

NA, but the NA does have a responsibility to ensure that sufficient resources are accessible. Such resources should also include those that are likely to be produced by the NA, such as workbooks, learner guides, candidate packs and tutor/assessor guidance. Learning resources for each unit may include tennis-specific coaching manuals, sport science books, handbooks, seasonal and annual plans, technical websites and online learning tools. Other resources for the CE system may include brochures, marketing materials, etc.



**7. Have a Continuous Education Professional Development Programme.** A programme of continuous professional development/licensing and re-accreditation should be available for coaches to maintain their status as tennis coaches at their respective level.

**8. Other relevant characteristics of the system.** The CE Department may not be limited to conducting coaching courses. Other activities may be included in its brief. The CE system should show compliance with National Regulations including Financial Management Procedures and Systems Insurance Cover (Public Liability and Professional Indemnity), Codes of Conduct, Anti-Doping Policy, Anti-Discrimination, Equal Employment Opportunity, Racial Vilification and Disability Discrimination, Copyright, Privacy, Working with Children, Workplace Harassment / Bullying / Victimisation, and Workplace Health and Safety. In addition, the CE system should show compliance with NOC and IOC regulations including Codes of Conduct, Anti-Doping Policy, etc. Finally, the CE system should show compliance with ITF regulations including Fees, Codes of Conduct, Anti-Doping Policy, etc.

The NA CE system may approve other organisations (known as training providers, approved centres or delivery agencies) to provide CE courses. This is acceptable provided the NA fulfils the quality-assurance role. The NA should ensure that the programme and/or qualification are delivered via appropriate criteria. They should ensure that candidates receive the correct programme of training and assessment and the best opportunities, within their capabilities.

### GUIDELINES

The ITF has created a document which outlines in detail the guidelines required by coach education systems of National Associations (NA) in order to obtain International Tennis Federation (ITF) recognition (ITF, 2008).

It is important NAs applicants provide sufficient, valid, current, reliable and authentic evidence against each of the criteria listed within the Guidelines. The Guidelines contain specifically designed assessment tools for ITF assessors, which will assist them to make an appropriate decision as to the success, or otherwise, of NA applicants. These assessment tools are readily available within the Guidelines, which will allow applicants to conduct a self-assessment prior to submitting their

application. An ITF assessor will then visit the nation to conduct the assessment.

#### SITUATION OF THE PROJECT

The project started in 2009 with two nations: Australia and Spain, which have already had their CE systems recognised by the ITF. The following Federations have accepted to take part in the programme in 2011: Canada, Great Britain, The Netherlands, Sweden, Switzerland, Belgium, Italy, Germany, France and Austria.

The objective is that all 10 nations above are approved by the end of 2011 and then the ITF will continue the project including a group of

countries (approximately 20) in 2012. Subsequently, the approval will be opened to all nations with the flexibility to approve systems at Bronze (self sufficient at level one) and Silver (self sufficient at level 2) from 2013 onwards.

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# How to educate tutors: LTA certificate in tutoring skills

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## ABSTRACT

*The present article reviews the main competency areas for training tutors within the LTA. The article discusses key aspects including climate setting, learning facilitation, assessment, and what skills a tutor should hold to maximise the learning curve for coaches during coach education courses.*

**Key words:** Coach education, tutor skills, assessment, learning facilitation

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## INTRODUCTION

For many years coach education tutors were selected by the LTA. These tutors tended to be coaches that were seen as having done well in coaching and that would hopefully have something to offer in coach education. This selection method did work well in many ways; however, there were clear flaws such as a lack of transparency in selection procedures and a lack of training for those selected.

In 2005 the UK Government through its lead agency for coaching, 'SportscoachUK', introduced an endorsement process for coach education programmes called the United Kingdom Coaching Certificate (UKCC). UKCC endorsement meant that a qualification had to have a number of quality control mechanisms in place, checked by SportscoachUK through the endorsement process. One essential criteria in order for endorsement, was to have a coach-education workforce- which should comprise of tutors, assessors and verifiers (see SportscoachUK, 2011).

As many National Governing Bodies of sport in the UK were going through the same process at the time, a generic 'tutor training for sport' qualification was offered by the ScUK. The course was well received across all sports, however it was quickly recognised that tennis had specific needs - this was such an important area that it warranted a tennis specific qualification delivered by the LTA.

This article will focus on how the coach education workforce element within the LTA coach education structure is implemented. It will also discuss how tutors that train coaches need to be appropriately qualified in how to educate coaches, in order for the course to be officially recognised.

## COMPETENCIES

The starting point for designing the course for tutors was to identify the competencies that effective tutors possess; this could then drive the content of the delivery phase of the course.

Candidates coming into the course are already skilled coaches and many of those skills are highly transferable into coaching and need not be covered on the qualification. Development of the competencies evolved out of understanding and discussing what a coach education tutor does and how their roles differs from being a coach, this became the area of focus for the course.

**The main competency areas for the LTA Certificate in Tutoring skills are:**

- Climate setting – ensuring a learner centred environment
- Structuring and delivering a learning session
- Facilitation skills
- Working with a co-tutor
- Assessment

## 1. Climate setting

The learning climate on a course is the key factor to its success. A successful course is one where the coaches understand that they are there to develop to be the best they can be, and where they also believe that the tutors are genuinely there to support that learning. Courses will be highly effective if the tutor can develop a course where feedback and mistakes are valued by the coaches as learning opportunities rather than to be avoided at all costs. To help set this learner orientated environment LTA qualifications have independent assessment, which allows the tutors on the course to really be there to help the coach to improve.

Prospective tutors are trained to understand the significance of the course climate, how they can affect it and how the climate changes at different stages of a course; from the nervous start where no one knows anyone else through establishing friendships with other course members and then finally to assessment.

They work on how to set the climate through building relationships, between the tutor and coaches and between the coaches on the course who can learn from and support each other; developing competence through personal best and clarifying the assessment process early in the course.



## 2. Structuring and delivering a learning session

This section of the course starts by developing the trainee tutors' understanding of the significance of course aims. It is from the aims that each session on a course has learning objectives and it is from these outcomes that the specific content is developed which will empower the coach to meet the competencies at the end of the course. The learning aims and objectives are set for each session on the course and

by working from these the trainee tutor will develop a series of steps that build towards achieving the outcome with their session content.

Coaches are experts at setting optimal practice situations for their players. Through experience, an increasingly significant area of this course is helping the trainee tutors understand the types of learning activity that they can set for their coaches. Helping a group of highly skilled coaches to step back and allow others to coach, make mistakes and develop takes time. The course gives lots of examples of how they can get their coaches thinking and working as coaches and how they can step back and facilitate the learning and improvement.

### 3. Facilitation skills

The 'softer' skills of coach education are:

- Questioning
- Feedback
- Goal setting
- Listening

Again these are skills that the trainee tutors have coming into the course as experienced coaches. However, they need help to understand how to use them with adult learners and how to use them in a course environment that involves assessment.



During the course the trainee tutors are consistently given the task of facilitating learning with one of their peers after a learning activity. One of the most valuable things they take away from the course is the model on how to facilitate feedback and discussion following a practical session. The skill of receiving, sorting, clarifying and summarising feedback is something that is new to most of the trainee tutors.

### 4. How to work with a co tutor

Most LTA qualifications are delivered by two tutors. Generally this is a great addition to the course; however, it does require some understanding of how to work together. The trainee tutors work through how to operate as a lead tutor and a second tutor. They start to see how as the lead tutor you have to include and maximise the benefit of the second tutor and also how as the second tutor you need to support rather than interfere, disagree or disappear!

### 5. Assessment

Assessment is perhaps the tutoring skill that the experienced coaches coming onto the course have the least experience. Understandably it is also the area that they are the most anxious about.

All LTA qualifications are assessed. Levels 1, 2 and 3 are UKCC endorsed, (see 1st4sport, 2011). Levels 4 and 5 are LTA qualifications. The assessment will consist of a portfolio of evidence to show work they are doing away from the qualification and how this meets the course competencies, the other element of assessment will be through practical delivery of group and or individual lessons (depending on the level of qualification).

The trainee tutors learn and practice how to assess based on the stated course competencies and assessment methods. They develop an understanding of good practice so that they can assess fairly and make judgements that stand up to rigour if and when a decision is challenged.

### SUMMARY

Developing the LTA Certificate in tutoring skills has been one of the most positively received LTA initiatives in recent years. Many coaches have really welcomed the opportunity to develop a new set of skills to compliment their existing coaching skills. Also the message that there is now an open career path into working in Coach Education has been positive and helped build even stronger relationships with many experienced coaches working in the field. For an overview of the LTA Coaching Qualification structure see

[www.lta.org.uk/Coaches-coaching-assistants/Coach-education-structure/](http://www.lta.org.uk/Coaches-coaching-assistants/Coach-education-structure/)

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# Tools for continuous coach education

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## ABSTRACT

*The continuous education process for coaches is an area of research that is gaining significant interest in the sporting environment, largely due to its impact on professional development, since it is evident that optimization in coach performance will bring about a positive impact on the results of his/her players. This article discusses some of the most common tools in tennis coach education that are used today, using Spain as a case study.*

**Key words:** continuous education, tennis, coaches

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## INTRODUCTION

Sport coach education models in general are closely related to educational models of the physical education teacher. Physical education has a longer tradition and basis within scientific research and has therefore shaped performance models in coach education. (Sanz, Fuentes, Del Villar, 2004).

In fact, parallels between physical education instructor training and coach education programmes have been the subject of a wide range of research in Sport Sciences. Even though their working contexts have unique and specific elements, their specific educational needs are very similar (Araújo, 1994; Ibáñez, 1996; Mesquita, 1997; Yagüe, 1998; Moreno, 2001; Fuentes, 2001).

Considering the sport coach as a technician is related to the similarity between the coach and the teacher, since "the coach acts like a physical education teacher who has to master a set of teaching skills in order to develop the teaching of specific motor skills" Del Villar and Fuentes (1999).

## OBJECTIVES OF COACHES EDUCATION PROGRAMMES

Some of the most relevant issues in the design of education programmes are the objectives that they try to attain, that will involve the acquisition of a number of competencies that are key for the technician (coach). Some authors like Zeigler (1983) suggest the skills that must be implicit in the performance of a good coach. These skills include:

- Personal skills: to organize their own work and in reference to their professional competence.
- Inter-personal skills: to impact the group of people being worked with, motivating them towards a common target. Mesquita (1997) will later refer to these skills as communication skills.
- Conceptual skills: to plan and develop work on the basis of the coaches' knowledge.
- Technical skills: to optimize the performance of the athlete based on sport specific knowledge.
- Complementary skills: a set of skills related to direction, control, management, etc.

## CHARACTERISTICS OF A GOOD COACH

Considering the characteristics of our sport, we know some of the features of a good coach as pointed out by the ITF (Crespo and Miley, 1999):

- To have a level of play that is good enough to hold rallies with the students, to show the strokes, and to feed the balls correctly, etc.
- To have a sound knowledge of the game of tennis, mastering the basic rules and regulations (scoring systems, size of the court, height of the net, etc.)
- To know the basic teaching methodology for adults and children.

- To project an appropriate image and appearance, be punctual, dress properly, make eye contact with the students as well as show positive facial expression and body language.
- To have a basic set of knowledge on sport sciences such as physiology, biomechanics, psychology, motor learning, sport medicine and nutrition.
- To make appropriate use of voice, modulating its intensity, avoiding monologues, speak with conviction, differentiate tone of voice e.g. higher for a group than for a single individual.



- To have good communication skills, be positive in expression and be interested in the comments the students make, use analogies, keep the attention of the group, use sense of humour, and different levels of language complexity depending on the audience being addressed.
- To show organizational and leadership capacity.
- To be able to keep discipline at all times.
- To understand and support the students

- To act with a philosophy in which success can be secondary for the athlete.

Undoubtedly, no one questions the educational needs for coaches who want to develop their work to meet the best expectations, whether with beginners or with high performance tennis players.

## EDUCATION MODELS FOR TENNIS COACHES

We can indicate different education models, both initial, that is to say first time education, and continuous, which is complementary, more prolonged and includes experience gained through the years.

Thus, we can differentiate education programmes as below:

- Type of education: initial or continuous
- Type of student (young, adult, expert, beginner)
- Organization that delivers the programmes (private, public, federation, university)
- Methodology (face to face, on-line, mixed)

- Length (credits, hours)
- Venue (single venue, different venues, lecture room, court)
- Degree awarded (academic, federative, not a recognized degree)

A number of revisions and modifications are currently underway concerning sport degrees, and therefore, concerning education programmes for those degrees. In fact, the new legislation for sport coach education in Spain accepts on-line education in some modules of general training and the specific sport modality. This is a substantial revolution concerning the traditional face to face hours the students were required to attend previously.

#### THE EXPERIENCE OF THE EDUCATION AND RESEARCH DEPARTMENT AT THE RFET (REAL FEDERACIÓN ESPAÑOLA DE TENIS)

In the case of the RFET, after numerous surveys made during the last 8 years, we identified that one of the main reasons that coaches do not attend educational events is the lack of time and economic resources. So, we considered the possibility of mixed education formats or even on-line formats for some modules or special subjects (specific examples of these subjects include regulations, equipment and legislation).

Thus, we started a number of on-line educational plans that are proving to be very successful, both from the point of view of the feedback provided by the coaches as well as the number of people enrolled.

We started with themed modules such as sessions on how to use Dartfish software technology, for all coaches who had taken the initial education course. Now we are collaborating with conferences such as the 2nd Symposium of Overtraining. This is a monographic conference on tennis, which will be the second virtual tennis conference that will be launched from the on-line platform.

A final initiative that we have successfully developed is a specific education plan at the International University of Valencia using a University Masters format; 60 education credits within four modules, which as a university based education is independent from but recognized by the federation. This Masters degree has a mixed structure, since there is a practice period in which students have to attend the specialized centres to complete practical work. The remaining education takes place from home and with the high schedule flexibility that these systems allow. (See <http://www.viu.es/web/guest/masters-online/entrenamiento-gestion-tenis>)

#### CONCLUSION

In conclusion, new educational technologies available today in conjunction with the advances of the internet, have had a tremendous impact on the availability and ease of access to information for coaches. Tools like the iCoach are an example of where coaches are able to access up to date and continuous education resources with ease, thus allowing for more continuous education during the career should the coach choose (Over & Sharp, 2008).

On the other hand, in countries like Germany, continuous education is compulsory to validate the initial education degree. However, this is not the case in countries like Spain where the decision to take up training courses depends only on the coach. Therefore, in the case of Spain- whatever we do to make education more attractive, functional and practical will have a positive effect on the coaches who will have better access to this education- that will ultimately suit their needs with minimal burden. The tools that have been used in education so far, videos, DVDs, books, no matter how valid they might be, will never be as up-to-date as those articles, presentations, audiovisual resources, etc. that are available on the web. As Van Fraayenhoven (2010) suggests, the last decade has seen a tremendously fast evolution in the information available for coaches. Thus, coaches from all over the world can have access to the information available on the web, which is regularly updated in most cases.

The pros and cons of mixed or on-line education (adapted from Lubbers, 2010) can include:

- Continuous updating of contents
- Flexibility to carry out educational programmes (schedules, duration)
- Stored content in electronic format allows fast revision and search
- Greater participation on the part of the students (search, on-line work)
- It is not a total substitute for traditional or face to face education.
- Greater possibilities for comparing and contrasting the information with peers and groups of students
- Synchronization with the education evolution of other training programmes and the new technologies available for coaches.

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# Online resources for coaches education: Motivation for applied Intellectual Capital Management in tennis

Joachim Mester & Ulrike Wigger (German Sport University, Cologne)

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## ABSTRACT

*Over the past few years the opportunities and challenges associated with "eLearning" have changed as dramatically as information technologies have been and are still developing. This refers not only to the technologies themselves but also to the availability of information. The amount of information in general, also scientific findings, can be characterized by an exponential growth, too. This in turn causes a rapid decrease in half-time for current, valid information and knowledge. In natural sciences this half-time is approx. 2.5 years, in information technology less than one year, both half-times are decreasing.*

**Key words:** online, education, tennis, information, knowledge

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## INTRODUCTION

Regarding the various formats of information, printed types still have their own relevance and impact. It must be considered, however, that it could take around 2 to 4 years to publish e.g. a substantial textbook, and that it takes another 4 years to bring out a completely revised version. It is easy to understand that over the course of these 8 years dramatic changes in valid information have been occurring and that practical problems and insights might have surpassed official doctrines by far. A special dilemma must be mentioned in this context: Young researchers are obliged to publish predominantly in journals with impact factors. Practically oriented journals do not fulfil this requirement. Thus, much information that might be needed urgently in practical settings, such as in coaching, are "hidden" in highly specialized journals and written in a language that too is highly specialized.

"Traditional" eLearning modules comprise various formats, such as Computer-Based Training (CBT), Web-Based Training (WBT), Web-Lectures (WL) and Web-Meetings, sometimes in stand-alone versions and sometimes in combinations of these. It seems that all these formats have developed more in an evolutionary way than by proven and evaluated concepts. One may argue that evolution in a biological sense produces results that are not totally negative. The counter-argument in sport is that we take care of individuals at the extreme borders of their potential and their health status as well as of kids with all the necessities of prudence. Thus, we are obliged to gather and use all currently available and reliable information as fast as possible.

The following two examples with respect to sport and exercise science shall illustrate that traditional formats tend not to picture the current state of scientific knowledge nor meet the requirements of modern training.

1) Intensity control and meaning of lactate: For many years now, it has well been known that lactate is not an end- or waste-product of metabolism but rather a potent trigger for many bio-positive signaling pathways. In spite of this, most practical recommendations state that "too" high lactate-concentrations should be avoided. Following current international research, however, it has been shown that it is important to develop the lactate-transportation and metabolism capacity by enhancing the lactate-shuttle of MCTs (MonoCarboxylat-Transporters). This can be done primarily by using special protocols of High-Intensity-Training

(HIT) in combination with adopted exercise-rest strategies (Gibala et al. 2006; Helgerud et al. 2007; Wahl et al. 2010a; Wahl et al. 2010b).

2) Talents, age and genetic pre-disposition: Especially in tennis there has been a long-lasting discussion about when, how and with whom early talent-identification and -promotion should be started. Current neurobiological research with regard to neurogenesis and synaptogenesis quite clearly shows that the period between the ages of two to four is extremely important for the development of high-performance motor skills. The contribution of genetic pre-disposition must be re-considered under these aspects as well as possible modifications by epigenetic mechanisms. This means that also at the level of the genes, effects of certain attitudes and of individual behaviors can be traced and can be influenced in their early stages (Csoka, Szyf 2009; Karberg 2009; Martin 2009). As exercise and training must be considered to be important contributors in this framework of stimuli, there is much reason to carry out more research in this field.

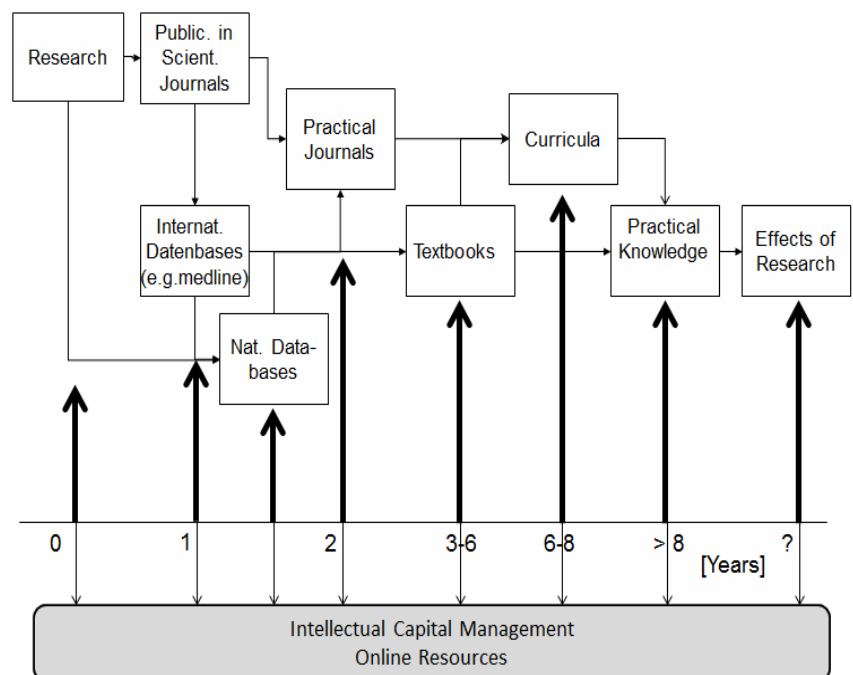


Figure 1. Time-line of traditional research and transfer-rate into practical publications.



A mapping of these examples to be reproduced in the format of traditional CBTs or WBTs is not practical. It cannot keep pace with the speed of progress in scientific research. Printing materials are hopelessly overstrained. The previous figure illustrates the problems and offers a conceptual approach.

If current research - as in the above mentioned examples - is carried out, one can assume that it takes approximately:

- One year before these results are published in international scientific publication databases, such as "Medline" and many others,
- two years until abstracts are mentioned in practical journals,
- 3 to 6 years until textbooks show the results,
- 6 to 8 years before these results are transcribed into practical knowledge,
- more than 8 years until research results show practical effects.

Nowadays (nearly) all relevant information is available online – somewhere – and could easily be organized in the form of a so-called Intellectual Capital Management (ICM) System. It must be stated that today it is no longer a problem to get access to information. The challenge is rather to gather, harmonize and to adapt the information to the needs of the practical application and also to give feedback to the scientists. The choice of digital formats is self-evident since the Web has evolutionarily brought into use all kinds of well-known tools.



Figure 2. Online Resources.

According to these considerations:

- 1) Research results should be picked up as early as possible, ideally through direct contact with the researchers.
- 2) Scientific publication databases should be scanned for new insights.
- 3) First, second and third results transformation in practical journals, textbooks and curricula should be documented and enhanced in an ICM System.
- 4) The development of practical knowledge should be monitored.
- 5) The effects of research should be evaluated.

Of course, so far this is not a way to communicate the results of scientific research and to get into powerful interactions with practical demands. However, modern internet-/information-/communication technologies are now at hand to build such systems. In the age of social media, software, tools and platforms there are numerous online resources available for that.

Fig. 2 shows tools and buzzwords. Fig. 3 illustrates the ICM concept of systematically structuring current scientific and practical knowledge and of connecting people – here coaches and scientists.

An integrative approach of these ideas can generally be found in so-called modern "Cooperation-Systems". These systems include the following elements:

- Social Software,
- Web 2.0,
- Computer-Supported Cooperative Work (CSCW),

- Groupware,
- Knowledge Management (in Communities of Practice),
- Infrastructure Technologies for Groupware and Social Software,
- Ubiquitous User Interfaces for Community Awareness



Figure 3. Added value of individual intellectual capital and communication via online-resources.

Such technical and organizational resources can be made available online and be used to stimulate exciting win-win co-operations. The - by far - most important issue, however, is the content which can only be and must be provided by experts. If, for example, the topic of "intensity in training and the meaning of lactate" is of interest, "communities" can easily be established around experts in physiology and practical training. Then, based on existing results in well-controlled lab-studies, conclusions for quantitative and practical applications in tennis can be drawn quite rapidly. Although quantitative consequences in the field of epigenetics cannot be drawn so easily because the research is not far enough, together with existing results in talent research, potential implications can also be developed.

There is no doubt that such a system requires significant resources in terms of development, installation, administration and maintenance. On the other hand as international competition and communication in sport belong to the most outstanding achievements of modern society, for a global institution such as the ITF it can be regarded as a real challenge to bring to life such an innovative system.

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# Competency Based Training applied to the education of tennis coaches

Patrick McInerney & Andrea Buckeridge (Tennis Australia)

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## ABSTRACT

*This article discusses elements and key characteristics of competency based training for tennis coaches, using Tennis Australia as a case study. It outlines competencies, how they develop and also implications of introducing a competency based programme.*

**Key words:** competency based training, australia

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## INTRODUCTION

Over the past ten years there has been a fundamental shift in the education of tennis coaches in Australia. The emergence of a coach development pathway, which identifies specific skill sets for coaches working with different levels of players in a variety of coaching environments (e.g., see Figure 1), has allowed educational programs to be tailored to meet the needs of coaches at different points on the pathway. Educational opportunities available to coaches have included formal accreditation courses, workshops/conferences, on-line video tutorials and mentoring. Advances in information technology and the internet have allowed for increased variety and flexibility in the provision of such professional development.

It is in the delivery of the formal accreditation courses that the most significant changes have been seen. The training by which coaches develop specific knowledge and skills (or competencies) has shifted from a traditional time-based content-driven approach to a competency-based approach.

## COMPETENCY-BASED TRAINING

Traditional content-based training methods required presenters to deliver content within a specific time period and schedule tests for all participants to complete at the same time (Sullivan & McIntosh, 2011). The participants were often quite passive with the presenter delivering a "lecture." To achieve a pass, participants were required to reach a designated minimum level (e.g., 70%), often a combination of results from a written test and a practical assessment. The focus was on content delivery (i.e., what is it the coach must know?) and, if a participant was unsuccessful, limited time was available for individual assistance.

In shifting to a competency based training model, the focus moved to developing the coach's skills in addition to the underpinning knowledge required by the coach to execute and adapt these skills as required. Coaches no longer were required to achieve the minimum pass mark of 70% but were required to show competence in all areas (i.e., 100%).

### Key characteristics

To understand competency based training we must first identify what a competency is. A competency may be defined as the application of specific knowledge and skill to a required standard of performance in a given situation. To implement a competency-based education program, a number of key characteristics must be considered (Norton, 1987):

- Competencies and the performance criteria used to assess the achievement of these competencies are carefully selected.
- Supporting theories are integrated with skill practice. Essential knowledge is required to be learned to support the development of skills.

- Training opportunities are flexible and include modes such as presentations, small group activities, practical simulations and online material.
- Practical training sessions and role plays closely replicate the workplace (e.g., player level, resources).
- Competencies and performance criteria are provided to participants prior to the commencement of training.
- Participants undertake a pre-training assessment to identify current competence in order to adapt the training program if required.
- Participants are encouraged to regularly reflect on their performance.
- Learning facilitators provide specific feedback to participants based on competencies being developed.
- Satisfactory completion of training is based on the achievement of all specified competencies.

### Assessment

Assessment in a competency-based training framework differs markedly from traditional courses which often involved the achievement of a percentage score (from a combined written and practical score) to be awarded a "pass" or "fail" grade.



Participants undertaking competency-based training are required to provide evidence to show competence in each competency and the specific performance criteria used to assess the achievement of this competency. A rubric is a tool which may be used in this assessment process (Stevens & Levi, 2005). Such a tool provides participants with clarity about the expected standard of performance, allows for consistency in assessment and encourages participants to not only self-assess but also take greater responsibility for their own development. A snapshot of a rubric is shown in Table 1.

ELEMENT OF COMPETENCY - ANALYSE AND CORRECT STROKE PRODUCTION AND TACTICS			
Performance Criteria	Beginning (B)	Developing (D)	Competent (C)
Individual and group progress is analysed and appropriate corrective strategies are selected	<p>Coach does not provide each player with specific technical coaching points</p> <p>Coaching points are very basic and global and are the same to all players</p> <p>Coaching points are not reinforced and vary throughout the session and in the closing of the session</p> <p>Player understanding is not checked through open or closed questioning</p>	<p>Coach provides most player with specific technical coaching points but it may be many</p> <p>Coaching points are not specific to individual players, and in general it is the same to all players</p> <p>Coaching points are not reinforced and vary throughout the session and in the closing of the session</p> <p>Player understanding is checked through closed questioning</p>	<p>Coach provides each player with 1-2 key specific technical coaching points</p> <p>Coaching points are specific to individual players, although some may be general to the group if all players have same technical flaw</p> <p>Coaching points are reinforced throughout the session and in the closing of the session.</p> <p>Player understanding is checked through open and closed questioning</p>

Table 1. A performance criterion from the Tennis Australia Junior Development assessment rubric.

### A CASE STUDY – INTRODUCING A COMPETENCY-BASED COACH EDUCATION PROGRAM IN AUSTRALIA

Tennis Australia adopted a competency-based approach to coach education in 2006. The shift to this approach presented a number of challenges and required significant changes to be made not only in the development of the courses but also in the way in which they are delivered.

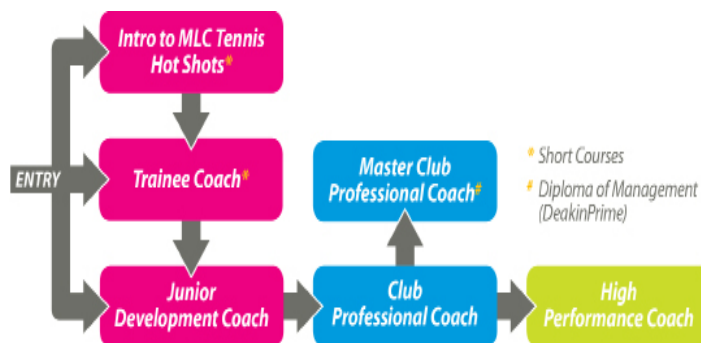


Figure 1. Current Tennis Australia coach education pathway.

### Criterion based training development and assessment

Careful selection of competencies and performance criteria is critical in the development of a robust competency-based education program. Therefore, a thorough review of the skill sets required by coaches at each level of the coaching pathway was undertaken prior to writing the competency statements. Competencies with similar themes were grouped together to form units of competency. For example, the Tennis Australia Junior Development course (equivalent to the ITF level 1) is designed to train coaches to develop players under 12 years of age. After consideration of the knowledge and skills required by coaches working in this role, seven units of competency were developed. These are:

- Apply coaching methods to meet the needs of junior sports players
- Undertake coaching activities in accord with professional and legal standards
- Coach junior players to develop fundamental perceptual motor skills
- Reflect and improve on professional coaching role and practice
- Plan coaching programs for junior sports players
- Interpret and apply rules of tennis
- Coach junior tennis players to develop stroke production and tennis tactics

These units of competency are made up of a number of elements of competency, each with specific performance criteria that are the standards by which coaches are measured. The training provided to coaches is structured to build the knowledge and skills of coaches to meet these standards. The major shift in the delivery of the training has been from a “lecture” model to a “learning through doing” model, with a range of thinking tools and practical activities to engage the participants being used to facilitate learning.

The assessment tasks have been developed to allow coaches to provide evidence of their competence on an ongoing basis during the training. For example, in the Junior Development course, one of the assessment tasks requires coaches to deliver three 30-minute lessons. Each lesson is conducted on a different size court – red, orange then green – with different ages and levels of players. There is sufficient time between assessments for coach reflection and learning to take place. The increased focus on the selection of relevant competencies and performance criteria, with the delivery of the accompanying training program, have resulted in coaches developing the specific skill sets required to work effectively in their coaching roles.

### Assessment as part of the learning

Assessment is ongoing in a competency-based learning environment. Prior to attending the course, coaches undertake an “assessment for learning.” This process allows the course coordinator to assess the coach’s current competence against the competency standards in order to tailor the program to their needs and to ensure they are placed with the most suitable Learning Facilitator. On-going assessment of a coach’s knowledge and skills is conducted during the training through observation and formal and informal assessments. Coaches are continually receiving feedback from their Learning Facilitator about their performance and while the formal assessment tasks are designed to measure “assessment of learning”, coaches report that significant learning occurs through this process (i.e., learning through assessment).

### Learning Facilitators not Presenters and Assessors

Referring to those delivering training as Learning Facilitators instead of Presenters and Assessors has sent a clear message about the role of these individuals. Participants now view their Learning Facilitator as someone who is responsible for helping them to develop and improve. Likewise Learning Facilitators understand their role is not simply to present information and then assess the participant’s ability, but to use each and every opportunity within the course to facilitate learning and improve in the level of competency of each participant.

In summary, competency-based training in the delivery of education to tennis coaches provides an opportunity to develop specific skill sets in coaches at each level of the coach development pathway. It allows for flexibility in delivering and assessment which in turn can better cater for the individual needs of coaches. Quality training with rigorous assessment will facilitate the development of quality coaches with the knowledge and skills to engage and develop the players of today and tomorrow. However, investigation is required to evaluate the effectiveness of coach education pathways and formal education courses to ensure the continual improvement of education programs.

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## "THE LONG-TERM DEVELOPMENT OF A HIGH PERFORMANCE PLAYER"

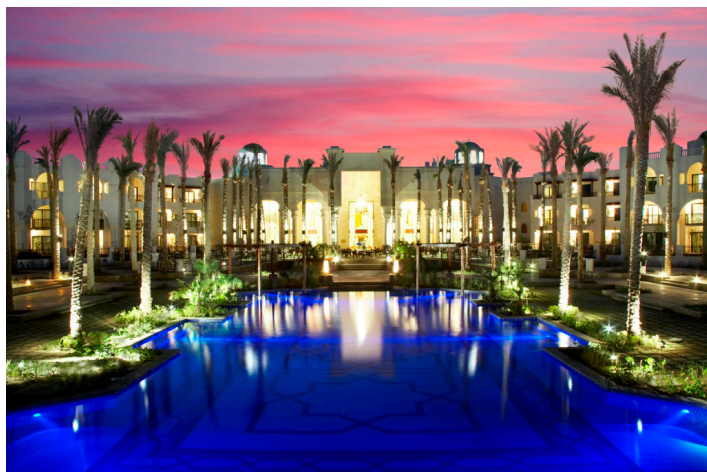
*"Many of the world's leading coaches and international sports science experts, as well as numerous national coaches and technical directors will present the most up-to-date information related to high-level tennis training"- Francesco Ricci Bitti, ITF President.*

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The Conference will deal with issues related to professional tennis coaching, applied sport science for top coaching, high-level player development and coaches' education across four age groups: 10 and under (Building phase), 11-14 years (Development phase), 15 -18 years (Junior phase) and 19 -23 years (Transition to Professional phase). Conference presentations will encompass different areas of sport science as applied to tennis: Psychology, Methodology and Training Systems, Sports Medicine and Physiology, Nutrition, Biomechanics and Technical Analysis, Physical Conditioning, Working with Disabled players, Tactics and Match Charting. Confirmed speakers for this year's programme include Patrick McEnroe, Rohan Goetzke and Wayne Black.

### Phases of player development - WCC 2011

- 10 and under (Building phase),
- 11-14 years (Development phase),
- 15-18 years (Junior phase)
- 19-23 years (Transition to Professional phase)



### THE VENUE

Port Ghalib is located five minutes from Marsa Alam International Airport in Egypt and 2.5 hours, by road, from the Valley of the Kings. It unfurls along one of the finest marina sweeps on the Red Sea.

Port Ghalib International Convention Centre, managed by InterContinental Hotels Group, is the only multipurpose state-of-the-art centre of its size on the Red Sea. The centre offers a meeting space of 1,950 square meters which will play host this year's ITF Worldwide Coaches Conference by BNP Paribas.

### Port Ghalib is serviced by two main airports:

- Marsa Alam International Airport (RMF) : situated 5km from the Resort, with limited air traffic.
- Hurghada International Airport (HRG) is located 200km from the Resort, with a larger volume of flight options.

*"The Egyptian Tennis Federation (ETF) is proud to host the 17th ITF Worldwide Coaches Conference by BNP Paribas in Port Ghalib, and as the President of the ETF I would like to welcome you to Egypt and to this Conference, a joint collaboration between the International Tennis Federation, the African Tennis Confederation (CAT) and the ETF"- Israa El Sanhoury, Egyptian Tennis Federation President.*

This year, the Conference has an "open registration" policy allowing an unlimited number of coaches to attend from any nation. More information and booking for the Conference can be done via the dedicated website:

[www.itfcoachesconference.com](http://www.itfcoachesconference.com)



ITF Worldwide Coaches Conference-Valencia 2009.



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## PERIODICITY

ITF Coaching and Sport Science Review is published tri-annually in the months of April, August and December.

## FORMAT

Articles should be word-processed preferably using Microsoft Word, but other Microsoft compatible formats are accepted. The length of the article should be no more than 1,500 words, with a maximum of 4 photographs to be attached. Manuscripts should be typed, double spaced with wide margins for A4-size paper. All pages should be numbered. Papers should usually follow the conventional

form: abstract, introduction, main part (methods and procedures, results, discussion / review of the literature, proposals-drills-exercises), conclusions and references. Diagrams should be done using Microsoft Power Point or any other Microsoft compatible software. Tables, figures and photos should be relevant to the paper and should have self explanatory captions. They should be inserted in the text. Papers should include between 5 and 15 references that should be included (author/s, year) where they occur in the text. At the end of the paper the whole reference should be listed alphabetically under the heading 'References' using the APA citation norms. Please refer to <http://www.apastyle.org/> for guidelines and tutorials. Headings should be typed in bold and upper case. Acknowledgement should be made of any research grant source. Up to four keywords should also be given and the corresponding author contact details.

## STYLE AND LANGUAGES OF SUBMISSION

Clarity of expression should be an objective of all authors. The whole emphasis of the paper should be on communication with a wide international coaching readership. Papers can be submitted in English, French and Spanish.

## AUTHOR(S)

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