



SPORT DEVELOPMENT FRAMEWORK FROM BRAZIL OLYMPIC COMMITTEE



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MESSAGE FROM THE PRESIDENT

The Brazil Olympic Committee (COB) considers that a sustainable and lifelong sport development is the result of an integrated work between the different organizations of the system. A middle and long-term view about the several aspects composing the complex system of sports development is the only way to keep us among the select group of successful countries in elite sport.

Considering the relevance of this matter, we are pleased to share the Brazil Olympic Committee's Sport Development Framework with the sport community. At first, it is focused on two main characters: athletes and coaches.

This document presents the most modern concepts about long-term sport development, by guiding the practices of the several athletes' development stages, from their first contact with sport to the end of their career. At this moment, after being globally qualified, successful athletes may contribute to the sport system in other functions.

Afterwards, we will draw attention to the importance of the adequate coaches' improvement so they may invest in their careers and guide the future generations' development in a better way.

We hope that this document will be an inspiration for sport organizations to structure even more their sport development process under a multifactorial perspective - an essential condition for the National Olympic Sport evolution.

Olympic Greetings,

Paulo Wanderley

Brazil Olympic Committee President



PRESENTATION

Welcome to Brazil Olympic Committee reference about sport development, focused on training high-performance athletes and coaches. Brazilian and worldwide tendencies about sport development are gathered here. We start from the high-performance sport systems complexity and their existing relationships between the different levels: from the athlete's individual environment with their family and coaches to the sport institutions responsibility for their development.

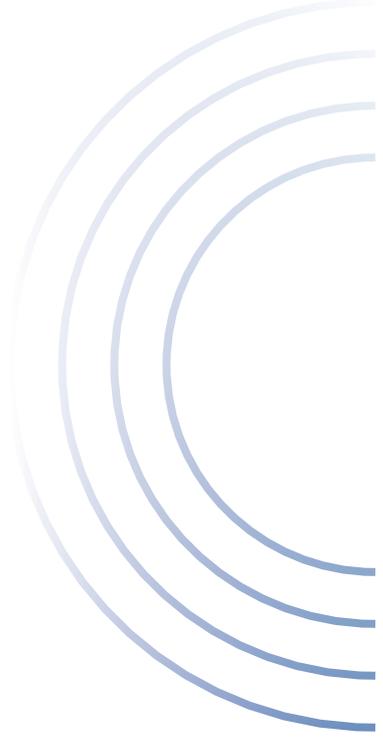
We believe that the first step to identify intervention opportunities by sport organizations relates to the comprehension of determinant features for sport development, also to the mapping of opportunities and elements to be improved. Thus, we briefly explain the Sport Development Management Diagnosis, based on the theoretical framework SPLISS, which has been used as a guiding tool for COB strategies regarding young athletes' development.

Section 1 – Long-Term Athletes' Development presents a wide and general proposal that highlights each athlete as a protagonist along her/his career pathway. It also brings the progression throughout the seven stages, including strategies of a high-quality linked system as well as the relationship between the involved agents, from the diversity of the first experiences to the complexity and individuality along the athletes' sport course towards establishing a successful career.

In **Section 2 – Women and Men Coaches' Development**, we intend to draw a set of principles related to the coaches' performance, learning, training and development to guide the formulation, planning, accomplishment and evaluation of these professional training proposals. The presented context admits the necessity of building an innovation culture and sustainable development.

Considering the relevance of these processes, the content presented throughout the framework is based on a great number of national and international references, also on the most recent scientific research about athletes and coaches' development in Brazil and around the world. At the end of this document, there is a production list that contributes to its support.

We hope that this framework may inspire the whole Brazilian sport system and might benefit to improve Brazilian Sport Federations' development. Our expectation is to guide the coaches' development programs format and the athletes' training practices, stimulating the maintenance of more athletes in a healthier, successful and extended term high-performance sport.



INTRODUCTION

Sport development, a multifactorial phenomenon

The consolidation of sport results in the Olympic environment and the encouragement of sport development are Brazil Olympic Committee goals, working in partnership with the national federations in developing young athletes. We intend to expand the support to the development categories with this process, enabling more opportunities to continue in practicing sport, which may generate more developed athletes in their plenitude. We also recognize the importance of an organized and coordinated system that counts on several agents' cooperation, providing opportunities to people from different ages, genders, skin colors, social classes and regions in the country, so they may begin, continue and be successful in their sport experience.

KEY-CONCEPT

Sport Development is a multiple long-term process of the sport context improvement that consists of an increase of the **quantity** of practitioners in all levels and also an increase of the **quality** of the offered practice, including the lifelong learning of the involved agents, which results in the improvement of the athletes' sport performance.

IT'S UP TO YOU NOW

- By implementing the Sport Development strategies, you can use the quantitative indicators of participants number (from initiation to sport elite) and of the performance in international competitions to evaluate the long-term sport development.
- It will be able to create a communication channel with several sport organizations to identify the main projects, programs and clubs that promote a good work on the athletes' development of each sport. Then, you approach their work more and more, sharing experiences and knowledge to strengthen the sport even more.
- Thinking about the democratization of the access to development categories and about increasing the number of practitioners, including high-performance sport, which activities may your national federation stimulate within sport federations to increase the access and continuity of youth in sport?

It is important to understand Sport Development in a holistic way, which means to expand the focus beyond the aspects that are closely connected to the athlete, considering other features that influence directly or indirectly this practice. Some of these aspects are determinant, such as: (1) environmental, political, cultural and economic elements, in which sport is included (macro level); (2) the structure, support and opportunities for sport practice (meso level); (3) the involved people and experienced relationships, like with family, coaches, managers, peers (other athletes), social media followers etc. (micro level); (4) the personal aspects and demands of each athlete, like genetics and resources to deal with the multiple demands of sport (micro level). These aspects are constantly in relationships, in different connections, throughout the sport career.

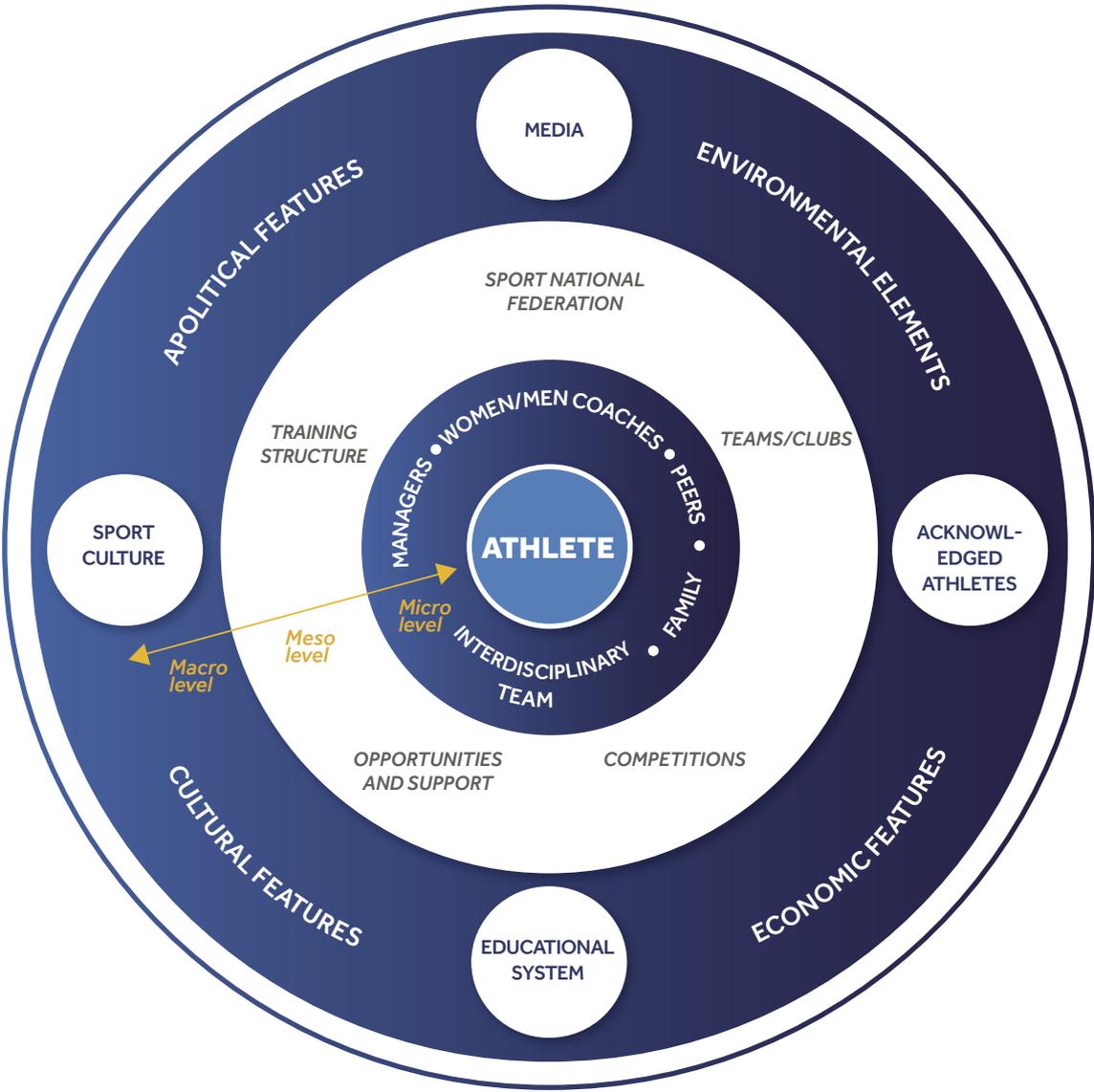


Figure 1 - Premises based on the athletes' development bioecological model.

The development strategies were produced considering the undeniable influence of the national context, such as the territorial dimension, cultural diversity and social inequality, which interfere in the sport practice opportunities of Brazilian population. Among these aspects, we find the cultural barriers still faced by girls and women in practicing sport. Although women practitioners may have occupied sport fields and increased their access to sport, among the 38,8 millions of Brazilians over 15 years old that regularly practice sport, only 37% are women¹. Men are still the majority (63%) of sport practitioners in the country. Social inequality also contributes to an unequal access to sport, considering that only 20% of the population living up to two minimum wages practice sport regularly. This participation increases to 40% among people earning five or more minimum wages. The conditions like spare time, closer and safer places to sport practice and financial resources availability to buy sport equipment support the population with higher incomes. Gender identity, skin color and social class influence Brazilian sport practice, strengthening the importance of specific work for different social groups that still face difficulties to begin and to keep themselves in sport.

The National Federation and Sport Federations might also influence society through their work, while being influenced by these cultural, political and economic aspects. They are protagonists in offering essential resources to sport dissemination and high-performance athletes' development throughout Brazil. The creation of programs and training courses for coaches, the availability of places to practice sport and the organization of sport competitions are essential support for the promotion and democratization of sport access. Regarding Brazilian territorial extension, it is important to recognize the challenge of expanding the range from local actions, also to reinforce the need of establishing partnerships and working together for the Sport Development. Among other agents from the Brazilian system, schools, clubs and associations also represent an important role in the athletes' development because they are in direct contact with practitioners and may offer places and human resources for sport practice.

1 Source: National Research by Homestead Sampling. Sport and Physical Activity Practices. IBGE. 2015.

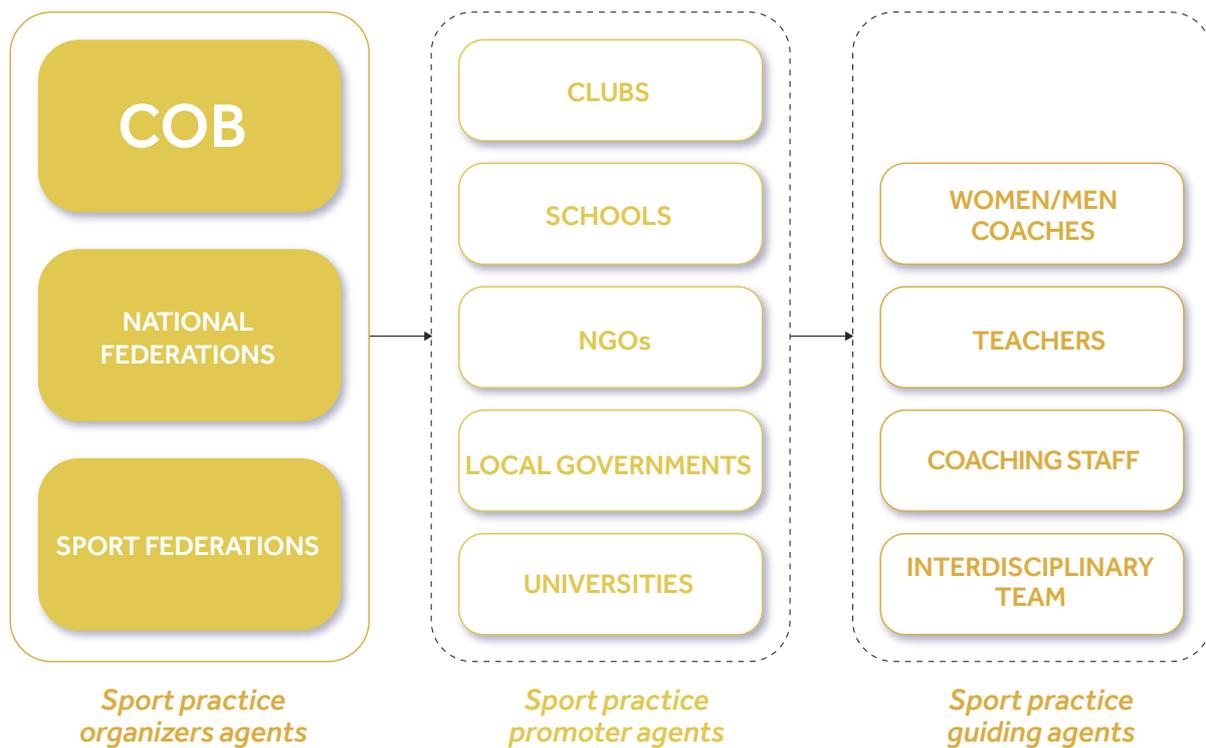


Figure 2 - Sport system agents

Ensuring that Sport Development may be sustainable and in long term, it is important that the support and resources may be offered in a coordinated and cooperative way, since sport initiation up to high-performance. In a complex process of responsibilities definition, the need of cooperation between sport organizations threaded with public and private policies is a big challenge. So, a great communication system and a clear description of the tasks are necessary. The alignment between the proposals and their fulfillment is essential as well as the coordination between the initiatives to expand the sport offer.

Relevant issues about the relationship between agents:

- Interaction;
- Cooperation;
- Communication;
- Definition of responsibilities;
- Establishment of common goals.

IT IS UP TO YOU NOW!

It is important to identify the main agents of each sport for a long-term plan, define responsibilities, promote partnerships and propose team actions that may enhance Sport Development. Who are the agents that your national federation can count on? What do they have to offer? Which agents and responsibilities are lacking to strengthen your sport system?

When analyzing sport practice specifically, it is important to identify the people that are constantly connected to practitioners and are also responsible for their development as an individual, athlete and citizen. The personal relationships arisen from sport practice are especially important because they enhance human and sport development. Thus, coaches and the other professionals from the coaching staff that are regularly close to the athletes become the main people responsible for providing and managing the sport practice. Their perception enables the alignment and individualization of training, taking the holistic development of the practitioner in account. Besides, they are responsible for providing inclusive and safe environments for practice, so athletes may feel comfortable to experience and improve themselves.

Finally, individual aspects like genetics, the ability of dealing with the sport environment challenges and motivation for practicing sport may also be considered in the process of athletes' development. It is important to recognize and respect these individualities throughout the Medal Pathway, and also understand the relevance of offering positive contexts that may strengthen these personal aspects.

Therefore, the development of high-performance athletes depends on a complex chain of elements in mutual connection and influence, varying in accordance to each sport's demands, not only by chance or as a gift. It is essential to understand the influence of these elements in the development process, when proposing effective and inclusive strategies that may result in sport changing.

GIRLS AND WOMEN: UNDERSTANDING HISTORICAL FACTS

All along this document, you will find several tables about Girls and Women, which aim to highlight specificities or directed actions for the progress of Sport Development, considering the difficulties faced by the athletes. Why is it necessary? Because there is a historical delay that demands specific actions to be overcome!

Modern sport has been historically constituted as a field organized by and for men. Traditionally, sport performance has also been linked to strength and aggressivity attributes, reinforcing the masculinity ideals, thus incompatible with the presumed women's delicacy and fragility. From their sport conquests, women athletes challenged these establishments and questioned the power relationships existing in sport and in society. Therefore, the smaller participation of girls and women in sport expresses the cultural challenges historically faced by them and not a disinterest for sport practice.

There is a particular fact in Brazil that makes this process worse: the act/law 3.199, from 1941, decreed that women were officially forbidden to compete "sports that were incompatible with their natural conditions". In 1965, there was another more specific act/law indicating combat sports, soccer and its variations, water polo, polo, rugby, weightlifting and baseball, so combat and team sports are the ones which girls and women find a greater social resistance in practicing.

Women confronted this context and practiced different sports in this ban period, but the act/law annulled essential elements for Sport Development, like the participation in sport organizations, in organizing competitions and the development of coaching staff professionals.

The end of the prohibition was in 1979 and, since then, the sport organizations could propose actions to increase girls and women participation in sport. Added to the athletes' fight, these actions enabled a sport diffusion and reached more devotion for sport. Since the 1980 decade, we can see a meaningful increase in the participation of women in Brazilian delegation along the summer Olympic Games editions, even the inclusion of new sports that were only practiced by men, until that moment.

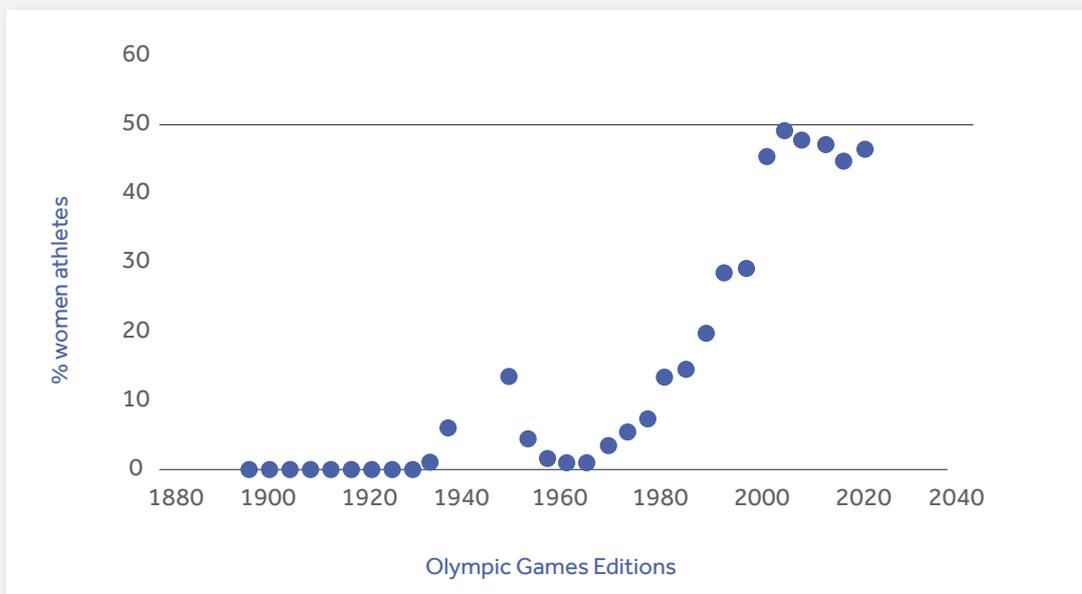
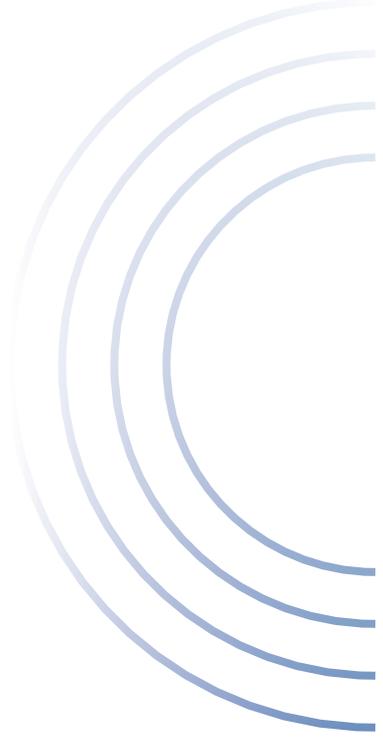


Figure 3 - Women participation (%) in Olympic Games

The International Olympic Committee (IOC) had an essential role in promoting actions to stimulate a higher gender equity in sport, in the direction of a more equal, diverse and inclusive society. Here are some of its guidance: the inclusion of women in sports that are historically practiced only by men, the incentive for a greater participation of women in leadership posts and the obligation of having, at least, one woman in the National Olympic Committees in the Olympic Games.

According to IOC Agenda 2020, a numerical equality of men and women athletes will be reached in Paris 2024 Olympic Games. Particularly in Brazil, women have already represented more than 40% of Brazil Teams athletes, since the 2000 decade. Although, even with these conquests, challenges related to visibility, earnings and social prestige are still reported, besides a much smaller participation of girls and women in sport compared to boys and men, outside the Olympic context. The challenges also refer to leadership posts, like women coaches, referees and managers. For Agenda 2020+5, the inclusion of women in leadership posts is an adversity to be defeated. Nowadays, the goal is to guarantee at least 30% of women participation in every sports council, and the IOC understands that there is a lot to be done. Thus, we reinforce the importance of specific actions for girls and women that aim for higher gender equity in sport, even with a current more democratic access to sport.



SPLISS Framework for International Sport Success

National Federation and Sport Federations are in constant interaction with the several elements that compose the Sport Development, so they have an essential contribution to the high-performance athletes' development. They may support the practitioners from different regions, ages and genders, and democratize the access to sport practice. Though, it is necessary to consider the sport system in a holistic way to obtain efficacy from the actions, recognizing each need in all athlete development stages. Sport Policies Leading to International Sport Success, known as SPLISS, is composed of nine pillars or areas that are determinant for international sport success. The framework brings important information for the sport system planning, monitoring and evaluating, which enables the offer of specific strategies according to each sport's demands.

Brazil Olympic Committee has used this framework, in a suitable way, as its strategy in promoting Sport Development to guide supportive programs to national federations, with the objective to develop sports and the involved agents in the sport development process. The critical success factors are used to analyze the management level and Olympic sports structure they have. Thus, we will see in this chapter a summary of the main concepts derived from the SPLISS framework.

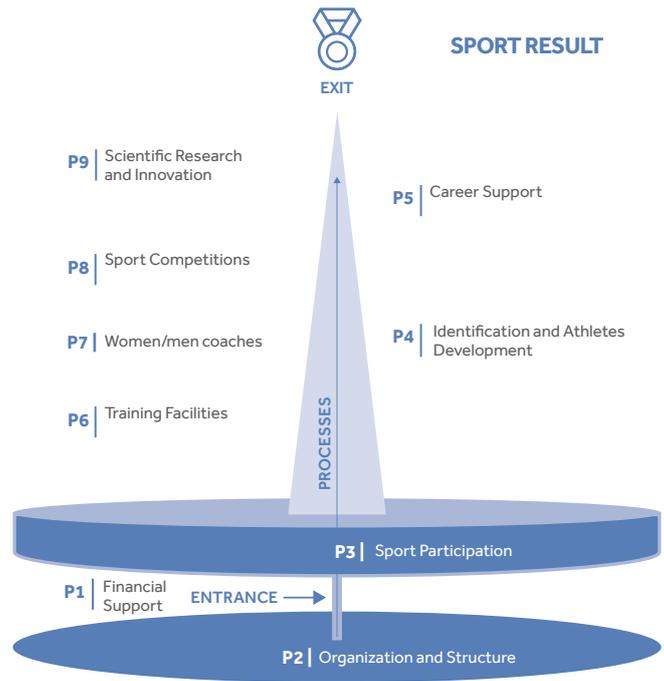


Figure 4 - Pillars that contribute to sport success (adapted from SPLISS)

Table 1 - SPLISS framework synthesis

| SPLISS FRAMEWORK | |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| What are the nine pillars? | They are areas from the sport system that contribute to international sport success. |
| Which pillars are related to sport success? | <ul style="list-style-type: none"> • Financial support • Organization and Structure • Sport Participation • Athletes Identification and Development • Career Support • Training Facilities • Women/men coaches • Sport Competitions • Scientific Research and Innovation |
| What are critical success factors? | They are 96 critical success factors arisen from the opinions of athletes, coaches and managers, who work in elite sport, that were gathered to compose the nine pillars. |
| How can the framework be used? | The critical success factors can be used as a reference when planning, monitoring and evaluating the sport system. |
| What does the framework enable to be done? | It enables decision making and resources allocation according to each sport demand. |
| In which sport can it be used? | In all of them, by all national federations and sport federations. |

It is necessary to allot financial resources to the sport system so that high-performance athletes may train in ideal conditions, with a great physical structure, take part in sport competitions and count on an interdisciplinary team. Thus, financial support corresponds to the first pillar and to the entrance in the framework (Pillar 1). Once the national sport system (or the national federation, in this case) is able to obtain, manage and allot more resources with more efficacy, it may also offer better training conditions, consequently, improving the athletes' development.

According to the framework, the financial resources must be managed with efficacy to reach different practitioners throughout the country. The interaction and cooperation between the organizations that are responsible for this management is a challenge for the Brazilian sport system. Therefore, the integrated approach related to the sport policies development, based on governance and high-performance management, corresponds to the second pillar and support the whole framework (Pillar 2). This structure, composed of diverse agents from the sports system, is essential to manage and allot financial resources.

Once the resources are available and there is an integration between the organizations, it is necessary to foster a wide participation in sport and a sport culture in the country. The increase of practitioners' number (for leisure, health or high-performance), viewers and consumers maintain the whole sport system, providing human resources to the athletes' development as well as the investment of more resources to sport. The third pillar includes the sport initiation processes and represents one of the successful basis to the high-performance sport (Pillar 3). It is necessary to establish specific systems, which are well planned, implemented and monitored, according to sport participation, to identify and develop high-performance athletes, corresponding to the fourth pillar (Pillar 4). The coordination of different agents, the definition of key elements to offer positive environments, identify and develop athletes with a sport potential are essential aspects to international sport success.

It is necessary to support the athlete all along the Medal Pathway, so they may improve their performance and build a successful career. The fifth pillar corresponds to the high-performance athlete career and post career support (Pillar 5). On this stage, SPLISS points to the necessary financial, sport, competitive, medical, nutritional and psychological support so that athletes may integrally dedicate themselves to their profession. This stage has also a particular importance in considering the sport post career needs and in preparing the athletes for retirement.

The training installations and the appropriate sport equipment are also essential resources for the athletes' sport practice and development throughout their career, an issue that corresponds to the sixth pillar (Pillar 6). The different kinds of support include from furnishing adapted and not expensive equipment, enabling a greater participation of children and teenagers from different social classes to building training centers and providing technological resources that make the athletes monitoring possible, in a high-performance concept.

The quality and quantity of sport coaches is also essential in all development levels. Thus, the seventh pillar comprehends the support given to these professionals (Pillar 7). It is divided in two parts. The first one represents the certification systems, development courses and opportunities offered to coaches so they may become references in their sports. The second one represents the quality of life originated from the profession, expressed by the wage level, social acknowledgement, social security among others. The framework reinforces that the more coaches are qualified and valued, the more they offer better quality sport practices, enhancing the athletes' integral development.

FOR MORE INFORMATION

The coaches support and development processes can be seen in Section 2 – Sport Women and Men Coaches Development.

The sport competition, either at national or international level, is an important support for athletes' development and it corresponds to the eighth pillar (Pillar 8). It allows the performance evaluation by the athletes and works as eligibility criteria on their progress for higher competitive levels. The national federation and sport federations must provide competitions for the athletes from different ages and gender, respecting the distinct development stages. Related to the national federations, it is essential to be responsible for the national teams and for the search of support for the international level athletes, within sport federations and clubs.

The search for innovation and the use of scientific knowledge in practice are also crucial elements for international sport success, corresponding to the ninth pillar (Pillar 9). Scientific knowledge provides information and technologies that improve training processes, resulting in a sport performance improvement. There are several Universities and research centers in Brazil that are references in sport. We recommend that the national federations and sport federations may establish partnerships with teaching and research institutions, enabling the practical use of scientific knowledge and the development of new research related to sport.

IT IS UP TO YOU NOW!

NATIONAL FEDERATION ACTIONS FROM SPLISS NINE PILLARS

| PILLARS | ACTIONS |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1- Financial support | <p>Identify sources of financial resources for your sport system.</p> <p>Establish a system to obtain, manage and allot resources.</p> |
| 2- Organization and structure | <p>Identify and establish relationships between the main agents (COB, national federations, sport federations, schools, clubs, NGOs) that provide sport in Brazil.</p> <p>Define guidelines for a long-term athlete's development and establish each involved agent's responsibilities.</p> <p>Identify the national federation members that are responsible for planning and providing Sport Development.</p> |
| 3- Sport participation | <p>Identify the features and social groups that still face some difficulties to enter and maintain themselves in sport.</p> <p>Stimulate the approach and experiences sharing between practitioners in development and high-performance athletes.</p> <p>Stimulate the sport dissemination in the different regions of the country.</p> |
| 4- Athletes' identification and development | <p>Establish specific systems and guide the athletes' identification and development.</p> <p>Propose performance indicators that may help the athletes' development process.</p> <p>Offer positive environments that may enhance the athletes' development.</p> <p>Establish strategies to retain the athletes in the different levels and stages of development, considering the social, psychological and academic/occupational aspects.</p> |
| 5- Career support | <p>Support a full-time dedication to sport.</p> <p>Provide an entire education to the high-performance athletes.</p> <p>Provide events and courses with different possibilities for the post career in sport.</p> <p>Offer an interdisciplinary support to the athletes in development.</p> |
| 6- Training Facilities | <p>Propose adaptation and alternative equipment that may enhance the range of sport in national territory.</p> <p>Make the sport practices places accessible.</p> <p>Offer training centers to the athletes in development and in the Medal Pathway.</p> <p>Provide adequate places of training and/or training ground for the athletes selected to national teams, along with the preparation for international competitions.</p> |

| | |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7- Women/men coaches | <p>Produce development courses for coaches, considering the range and specificity of the different regions of the country and their work contexts.</p> <p>Divulge and value the coaches in the sports environment.</p> <p>Support coaches qualified for the athletes' development, according to their competitive level.</p> |
| 8- Sport competitions | <p>Identify sport competitions focused on adult, formative and sport initiation categories.</p> <p>Structure a system that must be competitive and connected to the guidelines for long-term development.</p> <p>Enable the national team athletes to take part in competitions in and outside Brazil.</p> |
| 9- Scientific research and innovation | <p>Create a Sport Science department within your sport organization.</p> <p>Establish partnerships with teaching and researching institutions.</p> <p>Produce specific knowledge of the sport from research with the athletes and other involved agents.</p> |

FOR MORE INFORMATION

The original SPLISS framework may help even more in your sport strategies definition. For more information, click on the button below.



Modelo SPLISS

The necessity of understanding the specific demands of each sport enabled the studies to identify the most important pillars of athletics sports (TRUYENS et al., 2014), canoe (SOTIRIADOU et al., 2014), tennis (BROUWERS, SOTIRIADOU, DE BOSSCHER, 2015), judo (MAZZEI, 2015) and gymnastics (LIMA, 2020).



Section 1

***LONG-TERM
ATHLETES'
DEVELOPMENT***

Sport development is a very wide concept, thus this section will focus specially upon the contents, concerns and proposals that contribute to the athletes' development who have a higher potential to follow the Medal Pathway in international events, especially the Olympic Games and World Championships.

Each athlete's engagement in their own career journey will be highlighted, as well as the need of other agents and support for this long-term process.

Although the path may be individual and full of particularities, athletes tend to experience similar journeys, starting from the first years going through plenty of spontaneous **games** and sport **experiencing** or the first contact with fun practices related to sport in school context. However, the possibility of an athlete career starts with sport initiation, responsible for the first children/teenagers' experiences (generally)² and mediated by coaches. It may privilege **playing** and a wide experience with sport, from games and plays that awake the inherent pleasure of practice, promote **learning** and the engagement in several sport activities. The subsequent years are the period that the specialization process occurs, including changes in the activities structure that aim to develop specific competences of **learning and training** a certain sport.

These first stages constitute the initial process of sport development, indicated to everyone. Since there is no concern about the sports career, it is suggested that the sport may be chosen spontaneously. It stimulates the engagement in sport practice for life, either in participation (for leisure) or high-performance (for a career) sport.

Thinking about the following stage of being introduced to a high-performance context, we have the final years of development when athletes may wish and be in conditions to start the training route, also compete in a higher demand level. Once they advance to the adult category, they experience higher competitive and demanding events, which will become current in a desired extended high quality career, aiming to **win** the highest level of competitions. After completing this first cycle in the adult category, athletes become experienced and continue practicing adapted training to extend their career, through searching for even higher results from **winning** and **inspiring** other athletes and the society all around. Finally, we have the athletes detraining and retiring processes, **inspiring** the next generation and **renewing** their career possibilities and post career life.

This Medal Pathway includes a progression throughout the stages that will be deepened later. It values the comprehension of individuals in a holistic way, all over the sport career regarding physical, social and psychological development added to matters about women in sport. Related to sport, the features and training objectives, the format and purposes of taking part in competitions, and how the

2 Sport initiation is possible at any age. It is called "later sport initiation" when related to adults after they have grown up and matured. People who have initiated later rarely achieve high-performance level, but it is possible, as it is seen in winter sports within tropical countries like Brazil, also in that which some physical requirements are smaller or there may be legal specificities.

Olympic Values are present in each stage will be discussed. Finally, the management topic suggests a starting point, in each stage, for national federations and other agents to build strategies that may offer the best environment for your athletes' development.





1

*SPORT CAREER AND
ITS TRANSITIONS*

The sport career can be described as the journey of a sport practice that aims to achieve high-performance levels in one or more sport events. This happens within a long-term process, with constant stages from the initiation to retirement. It also includes all levels of competition, which may be local, regional, national or international, besides being amateur or professional. This process is characterized by different influences (family, teammates, coaches, context, activity etc.) and by continual changes. Some of them are possible to be planned and systematized, called normative transitions, and some others may occur in an unexpected way – like injuries or a move to another city –, called non normative transitions.

The engagement and permanence throughout the career stages require abilities to deal with more and more challenging training demands, also with the requests about the performance in different competitive levels, considering the individual and sociocultural context aspects. Athletes do not reach high-performance levels immediately; it will be a result of several features, like the experiences they had, the quantity and quality of training, the quality of their relationships, besides their biopsychological resources. These influences can be organized specifically from primary and secondary factors.

- **PRIMARY FEATURES** – They are singular features of each athlete and of the sport training, which affect the performance development, the genetics (biological diversity), psychological (confidence, goals establishment, mental health) and training aspects (technical, tactical, physical).
- **SECONDARY FEATURES** – They are external features that constantly influence the primary ones, like the sport popularity in a context or social support (or lack of support) by the family, coaches, peers and community.

The guidance is for long-term athletes' development, respecting the complexity and unpredictability resulting from the interaction between their several components, considering that athletes who are able to be medalists in the main competitions of their sports do not develop themselves in one or two sport seasons but in many years. This comprehension surpasses the simple expectation of identifying a possible sport potential and assumes the responsibility of developing athletes from a more democratic access, and from experiencing, educating and sport performing processes intentionally planned. So it is essential to distinguish the sport practiced by children, youth and adults as well as to clearly understand the moments of a free experimentation, specialization or search for the necessary performance to the Medal Pathway. The following table presents seven stages for the long-term athletes' development to Brazilian Athletes Development Pathway (CDA).

Table 2 - CDA Stages

| STAGE | DESCRIPTION | STAGE OBJECTIVES |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>EXPLORE AND PLAY (up to 8 years old)</p> | <p>Free practices with child's games in fun, challenging and diversified environments.</p> <p>In informal (family, street) or formal (first contact with sport, generally at school, clubs or academies) contexts.</p> <p>By adapting the sport experiences to the features and potentialities.</p> | <p>Pleasure and motivation to engage in varied body practices.</p> <p>Development of basic and diversified body competences.</p> <p>Healthy and friendly relationship with peers and adults.</p> |
| INSERTION IN SYSTEMATIZED PROCESSES OF SPORT LEARNING-TRAINING | | |
| <p>PLAY AND LEARN (6 to 12 years old)</p> | <p>Sport initiation: first systematized contact, organized by coaches for sport learning.</p> <p>Beginning: at any moment, commonly in childhood and adolescence.</p> <p>End: choosing sports with a greater affinity.</p> | <p>Pleasure and motivation to practice and formal and/or structured sport learning.</p> <p>Wide and diversified body competences that enable the engagement in sport practice with creativity and autonomy.</p> <p>Self-confidence and motivation to engage in personal journeys of sport development.</p> <p>Healthy and friendly relationship with peers and adults.</p> |
| <p>LEARN AND TRAIN (10 to 16 years old)</p> | <p>Sport specialization of one or more sports, in a formal context, with training and participation in competitions.</p> <p>Beginning: choosing the sport by the practitioner (generally in adolescence).</p> <p>End: starting a high-performance training process.</p> | <p>Specific competences development of the practiced sport.</p> <p>Engagement in the personal journey of sport development.</p> <p>Practice of the sport values in training and competition.</p> <p>Desire to join the high-performance journey for those who demonstrate sport performance potential, according to specific indicators of each sport.</p> <p>Desire to continue practicing participation sport for those who do not demonstrate sport performance potential.</p> |

| STAGE | DESCRIPTION | STAGE OBJECTIVES |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HIGH-PERFORMANCE SPORT CAREER ENTRANCE AND MEDAL PATHWAY | | |
| <p>TRAIN AND COMPETE (14 to 23 years old)</p> | <p>Last stages of the specialization process in the chosen sport and of the athlete's potential, who takes part in high-level competitions, still in limited age categories, being prepared for adult category and elite sport.</p> <p>Lasting about 4 or 6 years.</p> <p>Beginning: most common in the youth category.</p> <p>End: in the transition youth – adult.</p> | <p>Commitment to the sport performance evolution.</p> <p>Balance between personal life and sport training, connecting other social demands, looking forward to reaching high results in the category.</p> <p>Withstand progressive physical and psychological loads of training and competition.</p> <p>Character strengthening from ethic attitudes in and outside sport.</p> <p>Emotional stability to face the typical demands of the athlete routine, in training and competitions.</p> <p>Assumption and use of the sport science applied knowledge in daily routine, counting on the interdisciplinary team support.</p> <p>Establishment of performance and results goals for short, middle and long-term.</p> |
| <p>COMPETE AND WIN (18 to 25 years old)</p> | <p>High-performance sport, defined by intense training and adaptations to the highest level of competition.</p> <p>Lasting about 4 or 6 years.</p> <p>Beginning: search for competitiveness in high-level events of the adult category.</p> <p>End: at the accomplishment of the first competition cycle of adult category high-performance level.</p> | <p>Emotional self-control related to the typical demands of training and competition athlete routine, regularly improving the sport performance throughout the years.</p> <p>Competitor attitude and behavior as references for youth in development.</p> <p>Learning attitude related to the first participation in adult competitions, with a balanced performance and intention of the best personal results, from evaluating the preparation cycles of each competition.</p> <p>Self-knowledge and self-management of the athlete's routine, including the training and rest planning.</p> <p>Responsibility for a sport career with discipline, determination and autonomy, balanced with the personal life.</p> <p>Active and responsible participation in decisions related to the career.</p> <p>Inclusion of self-fulfillment aspects when establishing careers goals.</p> <p>Realistic viewpoint of their sport potential with a career goals plan.</p> |

| STAGE | DESCRIPTION | STAGE OBJECTIVES |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIN AND INSPIRE (22 to 40 years old) | <p>Maintenance of high-level performance and constant search for better results and medals, being an adversary as well as an inspiration for younger athletes.</p> <p>Beginning: at the end of the first competition cycle of adult category high-performance level, as an adult and experienced athlete.</p> <p>End: at the beginning of the transition process to post sport career.</p> | <p>Self-management of the athlete's career (health/performance/education), connected to social demands.</p> <p>Positive relationships with the career support departments (team, coaching staff, club, entrepreneurs, sponsors, media, investors, political, economic and social support institutions).</p> <p>Maintenance of habits and routines of a reference athlete, focusing on higher results and medal conquests.</p> <p>Strengthening in high-level competition.</p> <p>Inspiration and source of knowledge for athletes in development.</p> <p>Competences and abilities to deal with extended training, recovering and reaching excellency results processes.</p> <p>Planning the end of the career.</p> |
| TRANSITION TO POST HIGH-PERFORMANCE SPORT CAREER | | |
| INSPIRE AND REINVENT ONESELF | <p>Reduction of the quantity and intensity of sport training and participation in competitions, preparing her/himself for the moment of finishing the sport career.</p> <p>Beginning: at the transition process to post sport career.</p> <p>End: it extends to the whole life.</p> | <p>Responsible attitude, equivalent to their sport legacy, inspiring new athletes.</p> <p>Reference in events provided by organizations working on their sport.</p> <p>Preparation to a new career, in or outside sport context.</p> <p>Body care considering the stress from a high-performance sport career.</p> <p>Active lifestyle maintenance, finding pleasure in activities less intense.</p> <p>Adaptation to the new social, professional and financial context.</p> |

The suggested ages are approximate and may not be assumed as a reference to athletes' selection. Variations are expected and must be considered either because of individual features or the sport ones. The progress to the following stage may bring elements from the previous one.

Although there are expected and desired stages, each athlete's development process is unique, dynamic and not linear. Unique because each one has his/her story of life that will directly influence his/her experience and sport journey; dynamic because it is constantly influenced by the primary and secondary factors; and, not linear because some stages may be longer, shorter or inexistent, despite the tendency of equivalent journeys.

Sport career has been associated with the idea of a “life career”, in which athletes experience positive and negative circumstances that design their journeys throughout and after taking part in sport, from a holistic viewpoint and understanding sport as an element of a wider athletes’ life. Thus the athletes’ career development is in constant relation with other spheres of their life (psychological, psychosocial, academic/occupational).

The human development stage is in the psychological domain (childhood, adolescence and adulthood) and it is expressed in specific patterns of engagement and connection to sport.

Psychosocial deals with the way athletes associate with other people and how it influences their sport performance, which is also modified throughout their lives. In childhood, parents, siblings and grandparents tend to be more relevant; later, coaches become more relevant, and in subsequent ages peers assume a protagonist role. Finally, the academic/occupational dimension connects to formal education and professional occupation in the lifetime.

These dimensions tend to support more successful sport careers, when connected in a balanced way. Studies with Brazilian athletes have already evidenced that the engagement with training and competitions is related to the sensation of psychological well-being, also to the perception of positive relationships with athletes, coaches, family and other agents from the sport context or a wider social circle.

FOR MORE INFORMATION

The international literature on sport careers is extensive and Brazil also offers material on this subject. You can read more about the several sports in studies referenced at the end of this document: athletics (VIEIRA; VIEIRA; KREBS, 2003), swimming (VIEIRA, VIEIRA; KREBS, 1999; BUENO et. Al, 2020), basketball (GALATTI et al., 2015; BENELI; GALATTI; MONTAGNER, 2017; FOLLE et. al, 2017; CUNHA et al., 2017, GALATTI et al., 2019, FARIA et al., 2021), artistic gymnastics (SCHIAVON, 2009), rhythm gymnastics (NAKASHIMA et al., 2018), tennis (COPETTI, 2001), volleyball (COLLET, 2018), squash (MOTTA et al., 2021), handball (LIMA et al., 2022).

It is possible to add to these domains the kind of financial support prevalence throughout a sports career. The following figure illustrates the perspective of holistic development, which contemplates the different dimensions of the athletes’ life.

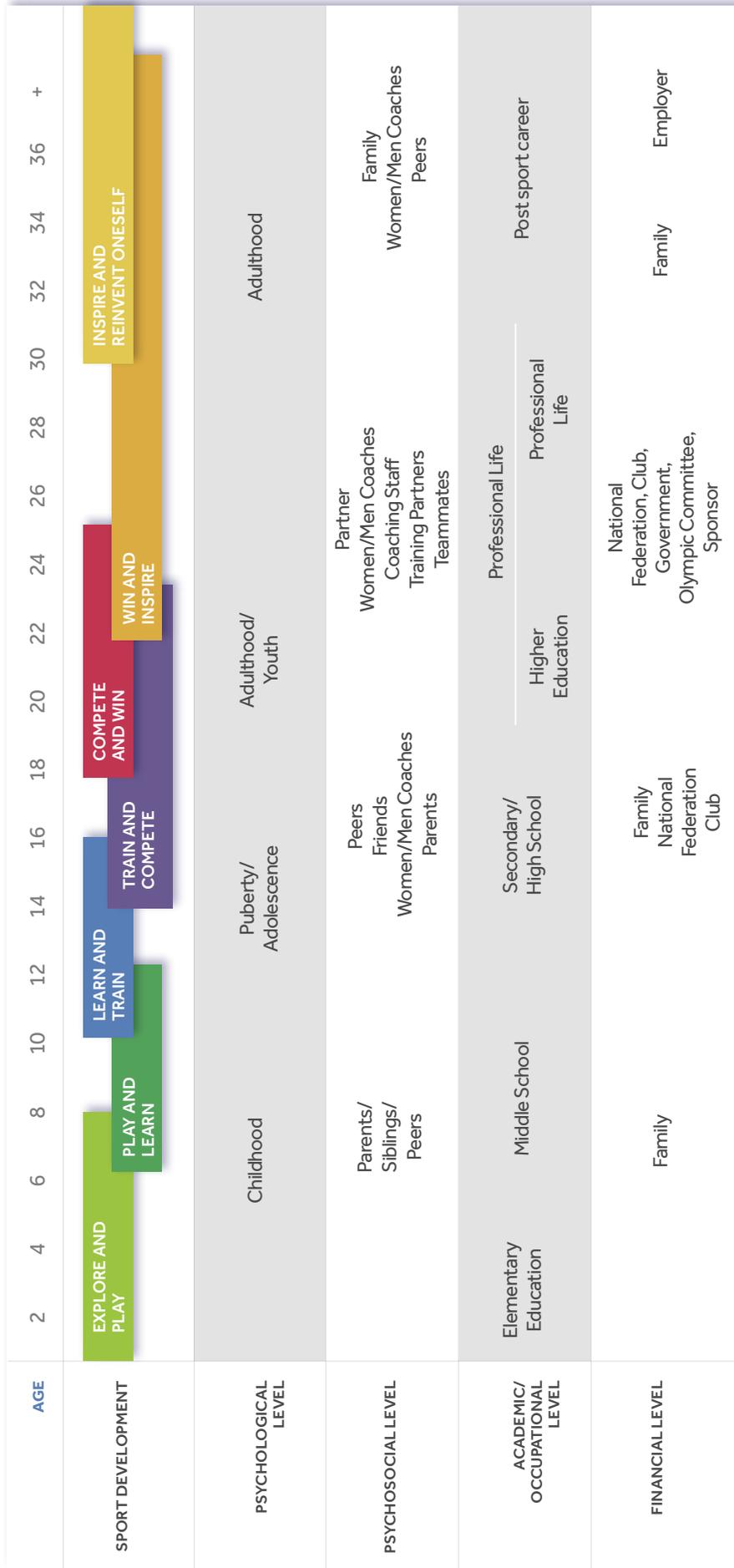


Figure 5 - Dimensions of the athletes' life throughout their sport career within CDA
 Source: Adapted from Wylleman, De Knop & Reints (2011).

We can think about adolescent athletes as an example of these dimension connections, for whom the school context is as important as the sport one, both of them stimulating physical, psychological and social development. The family and teachers' support and the coaches' comprehension about the importance of school are essential for a better balance of their double career (student and athlete). The need for financial resources will likewise change as well as the available sources. The following case illustrates the situation:

CASE: ANALYZING THE FIRST YEARS OF A YOUNG MAN IN SPORT CAREER

Mateus got to know basketball at school and soon started to play with a ball he had at home. It was a gift from his mother, who had played at state level until she opted to have a son and, because of the lack of support from her club at that time, she abandoned the career. Mateus was born on January 5th and had always been taller and stronger than his classmates. At the age of 10, he was 1.70m high and, at 12, he was higher than 1.80m. A little bit later, he was drafted by a great club and soon got specialized in the center position. At 14 years old and 2.01m high, he was dismissed from the club because he was not able to play basketball in the other positions.

Mateus got a new opportunity the following year: being 15 years old and higher than 2.05m, he was accepted in a new club. Mateus started training in two different periods, learning how to play in other positions. His evolution was considered so fast that in the second semester of the season he started playing in the category above. However, Mateus soon started having difficulties at school, aside from some small injuries and a frequent pain in his right knee that began to accompany the young athlete. At this time, after a family talk, the club agreed to keep him limited to the competitions of his category, considering that he was a potential player to the Medal Pathway. The concern about the double career of athlete and student provided great results, so that the following season Mateus could conciliate school and competitions in two categories. The club's strategy was that he would not play easier matches of his category, which gave the other athletes more playing time.

At 17 years old, Mateus had to move from his city because his club did not compete in the under-18 category. At the new club, he started studying in the evening, graduated High School and reached the National team. His family complaint about his move, about the lack of more clubs and, consequently, more basketball competitions that could enable more youth to develop in their own regions; as their younger son intends to follow his brother's pathway, they set up an association to develop local basketball – although they had found little support from State Federation. Everything worked out for Mateus: he is going on his career as an adult athlete, which he already got two Brazilian titles and a proposal to compete in the Spanish League the following year. After two years at the Under-19 National Team, in which he was not drafted to adult selection for three years, Mateus has recently gotten the opportunity to be in the team that will contest the next Pre-Olympic games.

In the case above, Mateus almost interrupted his sport career at an early stage. All along the specialization process, it is not recommended to define events or positions that each athlete will follow in youth and in adult categories. It is necessary to offer information about the training specificities while they experience different events or responsibilities in sport. At this moment in the sport journey, adolescents/youth must adapt themselves to the specific sport demands, demonstrate tactical-technical domain adequate to their age, and may face the fear of possible failure in competitions. Besides, it is essential to build a favorable environment for the participation

and the analysis of the competition results, disconnecting the success or failure to the results, but to an improvement of the performance and ability to deal with the training and competition environment.

Mateus' case also illustrates another repetitive phenomenon in the sport context, related to the momentaneous advantage assigned to the athletes who were born in the first half of the year, called **relative age effect**. The performance and morphological features of athletes in puberty age are also influenced by the maturation rhythm. Athletes with early maturation – and consequently higher than biological age – tend to present better physical capacities and to receive priority among the athletes from the same chronological age, in selection processes.

Besides, our young athlete faces the need for moving to another city because of the lack of structure to continue his career. In this case, he needed to do this at 17 years old, but it is common that adolescents have to move even sooner, often resulting in an early end of the sport career, once they cannot count on the family support to move with him, because of several reasons, like financial ones. The called **birthplace effect** considers the structural conditions of the place where the athletes are born. Taking, as an example, Brazil Team athletes who were medalists in 2000 and 2016, it is known that most of them were born in the Southeast region, with a high number of inhabitants and middle Local Human Development Index (IDHM), meaning places with better basic life conditions and a bigger assembling of sport organizations.

KEY-CONCEPTS

Relative age effect: related to the permanence of athletes who were born in the first months of the year in high-performance sport, especially in the beginning of a sport career. As the sport competitions are organized from date of birth, the athletes who were born in the first trimester have some advantage over the ones who were born in the last semester, related to growing up, maturation and physical development. The lack of a systematized process of long-term athletes' development produces exclusion in the search of sport success before the adult phase. This process reflects on a precipitated athlete's selection, frequently excluding those with late maturation.

Birthplace effect: it indicates possible differences related to the region/city that an athlete begins and develops in sport. For example, a child from a small city is supposed to have more access to street games or move to a public square easily (by bicycle or on foot); though it is more unusual that smaller cities may have specialized installations in some sports. On the other hand, youth living in big cities can access qualified installations more frequently, but may face some difficulties about a longer and costly means of transportation. This effect is related to the access and specialization in sport.

The comprehension about the long-term athletes' development may contribute to reducing the relative age effect and early maturation because it points to momentaneous results of athletes in development, so they may not be considered conclusive. The comparison parameters with other athletes from the same category may present great modifications in a short-term.

The offer of more long-term athletes' development centers and programs increases the opportunities to more young people in more places, reducing the birthplace effect. The proposal of competitions with alternative patterns may also contribute to this situation, like shorter seasons and more local events until the end of adolescence.

We must recognize the several transitions from the different levels, besides including the other dimensions of the athletes' life that go on at the same time of the athletic development throughout the different stages. Psychosocial or educational transitions, for example, may influence sport careers when producing new demands and difficulties, simultaneously to new challenges in sport life. These transitions are considered critical and determinant moments that can boost or interrupt the sports career when connected to personal higher balance or unbalanced moments. The transitions are identified as normative, non-normative and *quasi*-normative, according to their higher or lower predictability.

KEY-CONCEPTS

Normative transitions are those that occur to most of the athletes so they may be previously planned. For example, the adolescence and youth career stages must include school permanence; the transition from junior to adult athlete requests an increase in the ability to bear with training and competition high demands.

Quasi-normative transitions tend to occur in specific athletes' categories. They are more predictable and facilitate the planning and preparation. For example, athletes from smaller cities tend to move to another city to access more adequate training centers, following their sport career progress, as well as international athletes go through relevant cultural adaptations as they compete and live in another country.

Non-normative transitions are the least predictable and threaten the athletes' continuity on the Medal Pathway. For example, desired situations of adult life, like pregnancy for women athletes, or undesired events, like a death in the family.

It is also important to consider that many of these are simultaneous processes, i.e., young athletes are in middle or higher education at the same time as their sport development process. It is called a double career because of the double activity, and it reaches adult athletes who continue studying or connect another professional career to the sport one (especially amateur athletes and those with insufficient support to live exclusively from sport).

KEY-CONCEPT

Double career is the name given to the combination of high-performance sport career with educational development or work. It may add some difficulties to the sport development process, like reconciling sports, educational and labor appointments, which may be a risk to both spheres performance. On the other hand, athletes who experienced a double career, especially as a student, may have a better transition to sport post career as they experience other perspectives and interests.

The double career, especially the professional one, is normally a consequence of insufficient resources to a full-time dedication to sport. It is essential that the national sport federations may identify these cases and the possibilities of a better financial support for training, competitions, eating, health and general life conditions. It is necessary to take care of the athletes' career management so these parallel processes may not compete with each other.

The clubs and national sport federations must be partners to provide support to athletes so they may identify the different transition demands, among the aspects connected to the athletes' holistic development. The potential obstacles to be faced are also related to this support and may vary according to the sport or development environment and the available resources to overcome these challenges. Some initiatives towards preparing athletes for these moments consider the improvement of life abilities, like their career and time management, for example. The more experienced athletes' stories as well as the coaches and interdisciplinary team support may contribute to the evaluation of new situations, resulting in the expectancy alignment and strategies planning to overcome the adversities of the moment.

IT IS UP TO YOU NOW!

- The career transition moments may result in the athletes' acceptance or in renouncing their career. The reasons for quitting are related to body issues (like the inability of answering to physical or psychological training demands, advanced age, performance decline or injuries) or social ones (finance, family, school). So, are there surveys in your sport that indicate the main reasons for this abandon? Once they are identified, which support may be planned by your national sport federation?
- Identifying the most frequent transitions in the high-performance athletes' career from your national sport federation may help to anticipate demands and establish support procedures to the career management. Which strategies can be established and what are the necessary resources? How to value the ex-athletes supporting their transition to retirement, reinforcing the importance of their role to inspire younger athletes?



2

*CDA: ATHLETES'
DEVELOPMENT PATHWAY*

The assumed perspective is that the athletes' development is a complex and long-term process, composed of several interconnected stages, each one with its particularities. Besides, there are different factors related or not to the sport environment and each athlete's individualities. It is important to respect the stage elements and connect them to the physical, psychological and social dimensions for the development of healthy, efficient and resilient athletes, with greater possibilities to extend their elite sport career.

The abbreviation or negligence in any of the CDA stages, the disregard to the athletes' needs and individual aspects in a holistic comprehension may result in mistaken training processes and career management, thus causing problems or even the interruption of the sport career. The following table summarizes the most repetitive mistakes throughout the different stages.

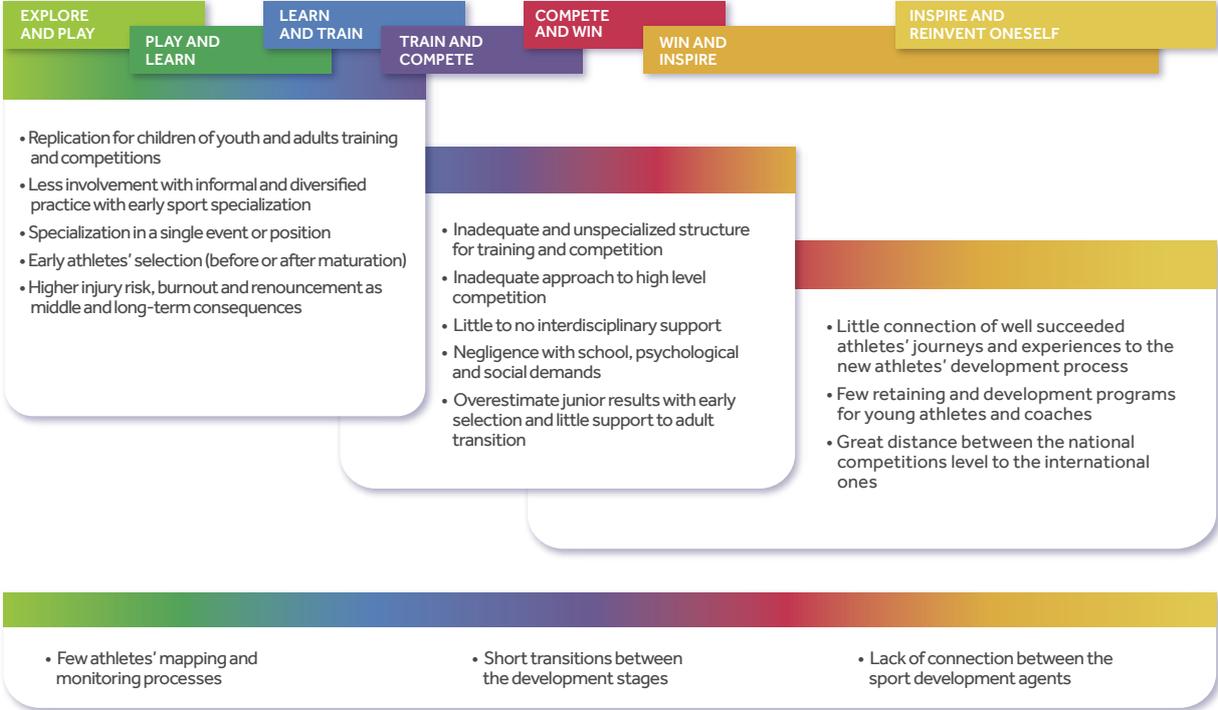


Figure 6 - Typical and repetitive problems that tend to damage CDA.

The most common matters about the athletes' development have different causes. They may be related to (i) athletes' individual issues, (ii) context issues like the availability of structure and equipment, or (iii) management issues like the lack of connection between the sport development agents.

IT IS UP TO YOU NOW!

Which of these problems do you identify in your sport? Is there any data to support these matters in your sport? It is necessary to establish athletes' monitoring strategies and to check the development pathway of those who achieved high-performance in good conditions to fight for medals, as well as those who did not. Thus it is possible to be more assertive in decision making processes. The suggestion for mapping the current context and delineating actions to improve the future one is individual questionnaires and interviews with groups of athletes.

Once the main obstacles are known, it is time to move forward towards the recommendations related to an adequate long-term development process.

Sports for children may be free or guided and must always strengthen a diversification of practices, in a joyful and playful context, independently of the objective. After the sport initiation process, there are two routes to be considered: **sport development for high-performance** (here called the Medal Pathway) or **participation sport** (for leisure and self-fulfillment). Only a few participants will reach the high-level performance, so if sport is a social good that develops people, it must be provided to everyone. Besides, participation sport may generate more spectators and supporters for a specific sport, increasing its social worth and resulting in the investment visibility.

This document focuses on the high-performance route, considering that its corresponding development begins in youth, with a progressive advancement to reach from local to international expressive results, and becoming able to trace the highest level of a medal pathway: the Olympic one.

Figure 7 illustrates the idea of the long-term sport development, representing this route, establishing the athletes' development Brazilian framework, the **ATHLETES' DEVELOPMENT PATHWAY (CDA)**, with seven stages connected by transition periods, added to each sports specificities and the athletes' personal features:

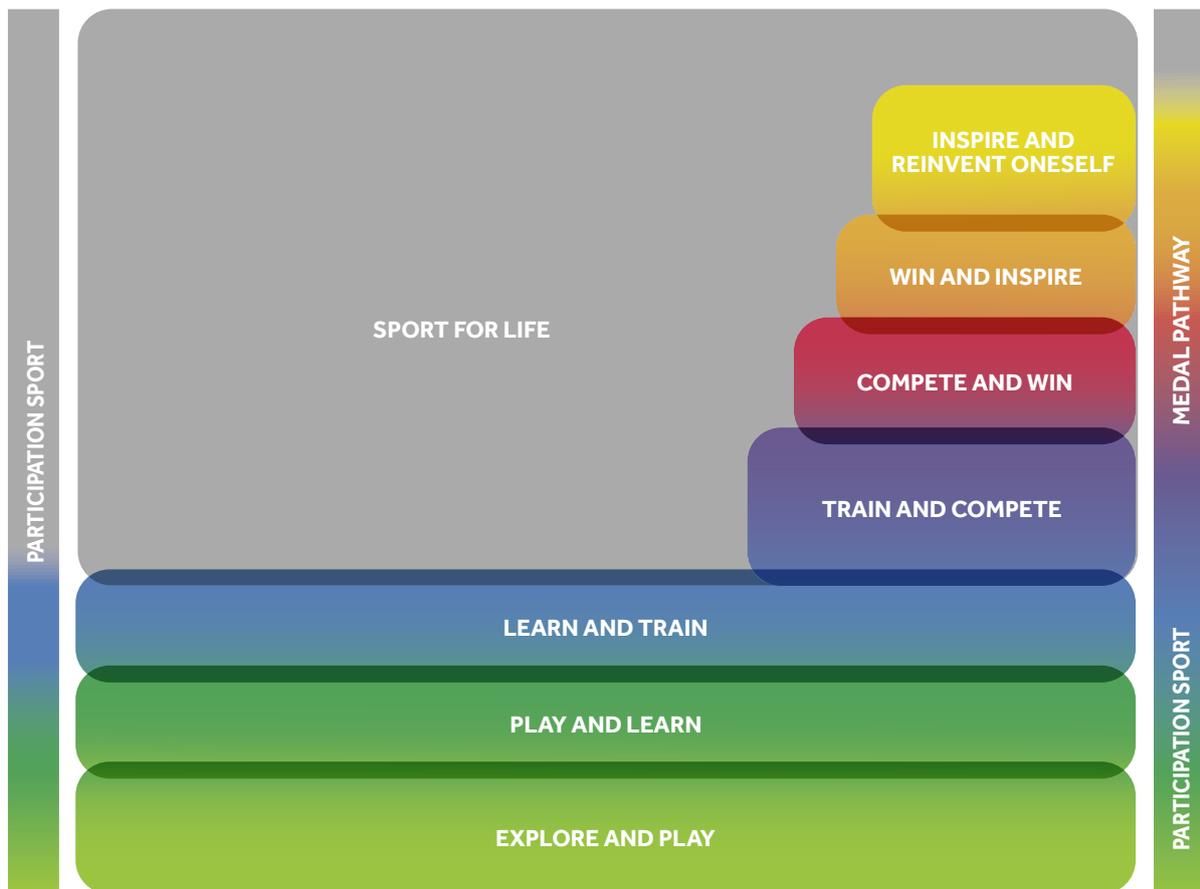


Figure 7 - CDA: Athletes' Development Pathway.

For a better CDA comprehension, it is important to consider:

- Frameworks like this one represent general tendencies, though the sport journeys are individual and any particularities must be considered.
- Each stage has its specific objectives that may guide the expected results for each moment. It is not expected (and probably not desirable) that subsequent performance features may be reached at an early stage.
- It is important to understand the sport development as an open and continuous system, despite expressing a desired pathway.
- It is important to understand that this pathway directly influences the personal and daily life of those who become high-performance athletes, which must be considered in a holistic perspective.
- The limit-ages of each stage are references with a relative flexibility, according to the specific sport context. The idea is that the transitions may flow, considering each athlete's whole development, not only their chronological age.

FOR MORE INFORMATION

The buttons below present the reference documents of the Sport Development from the United Kingdom, Canada and Australia, which may be accessed for a better CDA comprehension, as well as to know how the other countries discuss this process.



This entire proposal is supported by the athletes' holistic development perspective, which assumes that performance objectives may be conditioned to a healthy human development, considering the physical, psychological and social dimensions in connection and movement.

There are three dimensions to be highlighted in a holistic perspective: the **person**, the **sport** and the **management**. The person dimension includes physical, psychological and social elements (including academic and labor demands) of each athlete in the system; the sport dimension connects elements from the sport features or demands to training and competition, as well as the values experienced in sport throughout the different career stages; and the management stage indicates which resources, institutional and individual support the sport organizations – like the **national federations** – need to offer, so each athlete's development becomes possible.

Sport is the intersection point between the person and the management. The beginning of sport practice occurs under the strong influence of the closer people. It is necessary that the institutions responsible for the management respond to make long-term development possible. Thus, the sport dimension is created by the intention of practice and by the sport environment association, which are strengthened from the sport management's actions.

These three dimensions tend to support well succeeded sport careers, when balanced in a long-term sport development program. From a holistic perspective, these programs respect the multifactorial feature of this process, as well as the contribution of different areas and professionals, preferring diversification to specialization, avoiding early specialization in a single sport, training charges and inadequate requests for the age. The processes that anticipate these stages may also take athletes to the Medal Pathway, although with their health damaged and less interest in practicing, thus more associated with sport practice abandonment.

The simple participation in sport practices does not guarantee a certain improvement of the necessary competences and abilities to a healthy human development and better results. It is

essential that the sport programs must be carefully planned to achieve this objective. It is important that the athletes may be their own development protagonists, consciously contributing to their sport career evolution, as well as to their peers, in a regular learning process, in the search for an integral development. Therefore, all of the sport environments towards the athletes' development may take care of the children, teenagers, youth and adults psychological and physical security, respecting their specificities. They may also:

- Provide the adequate structure and assistance for the athletes' ages.
- Stimulate adequate relationships with peers and coaches that may arise a sense of belongingness in the athletes.
- Follow positive social rules, foster autonomy, empowerment and opportunities to develop competences.
- Connect the athletes' family and community.

One way of knowing how to guide and correct the athletes' development routes is getting to know their lives better. Therefore, it is necessary to analyze the several elements related to their routine in different ages and development stages, throughout their sport career, and also the management demands connected to them. Figure 8 estimates the demands distribution of sleep, nutrition, personal care, daily life activities, academic and leisure ones throughout an athlete's life day, in the different stages of CDA.

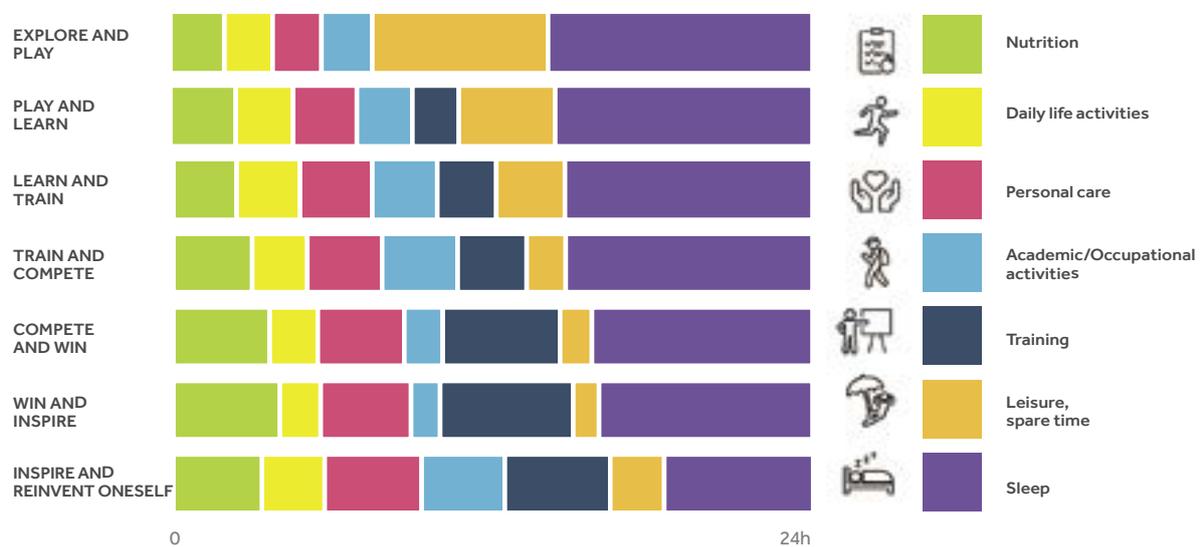


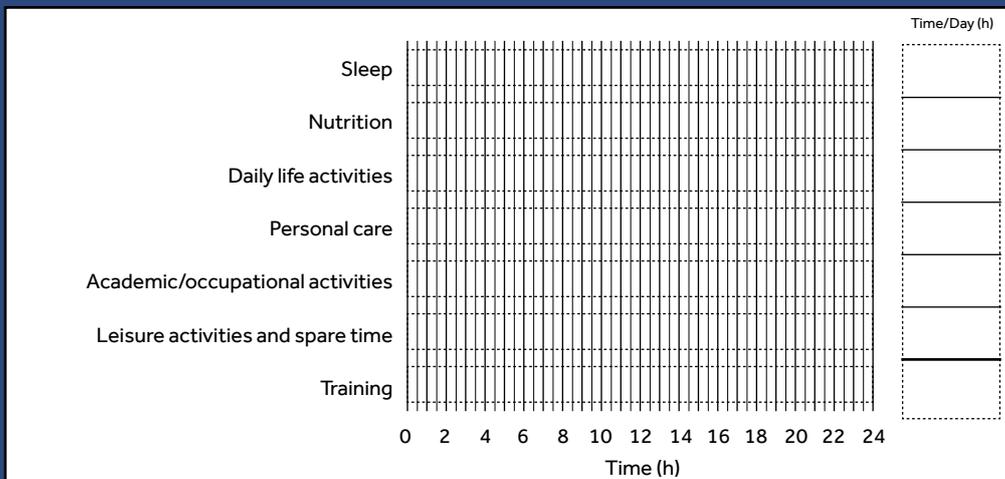
Figure 8 - Athletes' routine in the different stages of the Athletes' Development Pathway.

IT IS UP TO YOU NOW!

It is essential that you think about investigating better your sport athletes' life, after understanding their routine aspects in its different stages. Thus, we recommend two questionnaires. The first one is related to the weekly activities frequency already listed. See the questionnaire model below, make a relation with the explanation table of each aspect and find ways to apply it, printed or online. We have highlighted three quantitative aspects of this first tool, easy to measure and very important to understand an athlete's routine. They indicate how much and how these activities are present in your athletes' life.

| QUANTITATIVE ASPECTS OF AN ATHLETE'S DAILY ROUTINE | WEEKLY FREQUENCY OF OCCURRENCE IN THE ROUTINE | | | | | | |
|----------------------------------------------------|-----------------------------------------------|---|---|---|---|---|---|
| Academic activities/occasional | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Leisure, idleness and spare time | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Training | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

The second questionnaire is a way to know the athlete's daily routine. It is important that all aspects be explained to the athletes so they may have enough time to monitor their own routine, answering the best they can, indicating the estimated time within each mentioned aspect. We recommend that the questionnaire may be filled with data of three days, at least, and that it may be filled again in different periods throughout the season. The understanding of the athlete's routine can contribute to a better understanding of daily demands, so coaches and interdisciplinary teams may structure more adequate training, connecting the training activities to other needs in a balanced way. See the following questionnaire model:



We highlight training as one of the most important elements of the Athletes' Development Pathway. Throughout the stages, it modifies progressively, according to the complexity, specificity and quantity. Training is directly related to competitions, from local (festivals, local or regional championships) to state, national, international and Olympic level. We indicate this progression in figure 9, with the training and competition features of each one of the stages.

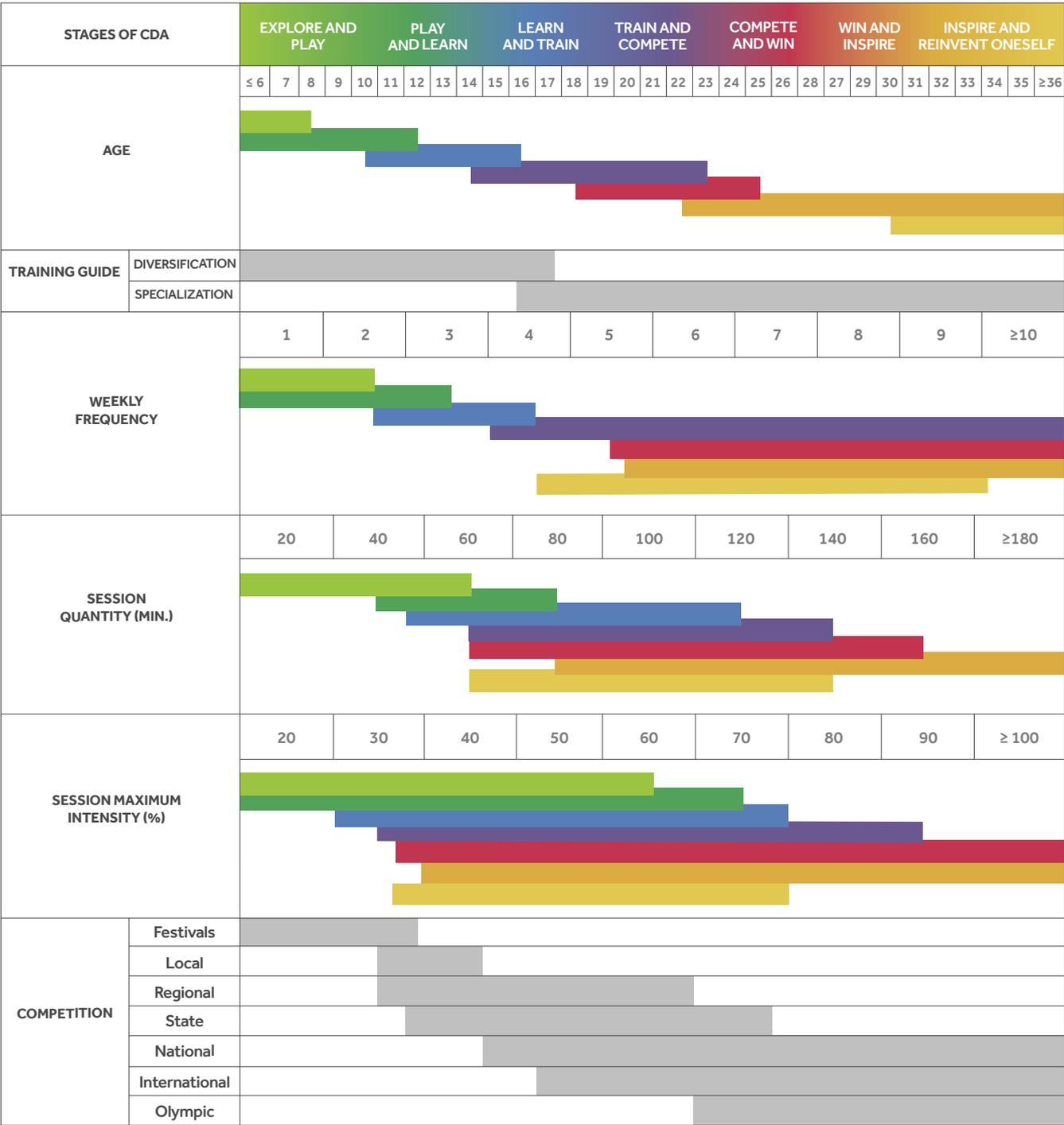


Figure 9 - Training and competition features throughout CDA stages.

We recognize the specific characteristics of each sport, like some with early specialization and others with late one. However, we emphasize that the indicators may be useful for a better CDA comprehension, to organize the training process and establish the objectives within each stage.

We will continue further with recommendations to the high-performance athletes' development, describing the current tendencies of each one of the seven stages that compose the Brazilian framework already presented.

2.1

EXPLORE AND PLAY

To experience several ways of movement in games and in children's games with security and freedom is the focus of this first stage, in which children may have an integral development, throughout the early childhood while playing sports.

CASE: EXPLORE AND PLAY

Caio and Carla are fraternal twins and were born in an amateur sport family. Their father and mother met each other on a street run and, a few years later, they were a family of four people. Considering that both of them worked outside home, the four months old children were enrolled in a Municipal Center of Elementary School near their house, where they studied up to four years old. Their favorite moment was when they were at the playground and experienced all the available child's games, from jungle gym to slide, mixing with tag. On some weekends, they used to go to the park with their parents, to present their new body discoveries, playing ball games with the feet and hands and were facing a new challenge: riding a bicycle without training wheels.

Their maternal grandparents lived in a building with a swimming pool. On sunny visit days, sister and brother used to delight themselves in water, imagining they were sharks and dolphins. Despite the small apartment they lived in, they always found a way to have fun, climbing the wardrobe drawers or doorframes while their parents carefully observed, with a restrained smile mixing pride and joy because of their children's self-confidence.

The body and sport experiences at this stage may stimulate the children to:

- Enjoy and motivate themselves to move and play sports.
- Develop basic and diversified body competences.
- Associate to other children and adults in healthy environments of body practice.

THE PERSON

The children's development at the first ages is characterized by changes in all dimensions. There are regular increases in high, body and muscle mass, related to their **growing up** and **physical development**. The bone, muscle and cardiorespiratory systems are in process of growing up and maturation, so it is imperative that the sport experiences do not overload these structures.

The development rate decelerates continuously from four years old to adolescence, when it goes up again. The children's brain is developing and the maturation of the nervous system, including

the cerebellum region, supports the motor functions development like body posture, volunteer movements, fine adjustments, sensory organs control in spatial orientation and body consciousness.

Children adapt their bodies to a life with more motor possibilities because of this progress, developing and improving a wide variety of body competences. The development of coordination abilities like rhythm, coordination and spatial orientation supports the motor abilities learning (running, jumping, rolling, catching, throwing, rotating etc.), enabling them to move throughout the space and manipulate objects, coordinating even more the movements.

The **psychological** point of view indicates that children develop their cognitive functions, which allow them to express their wishes from language development, linked to a greater autonomy. They are also creative and adaptable to different kinds of stimuli, though they tend to understand things in a global way, without noting the details, what must be considered in the sport learning formal processes. Thus, in a complex way, there is an increase in the interactions with the environment and an optimization of the general body abilities.

It is a period of great development and learning in which children discover the world and begin to build socioemotional abilities, necessary to the comprehension of themselves, like self-concept and self-esteem. The quality of their social relationships and the personal success and failure experiences are mediators of this process. Therefore, adults may promote safe and healthy physical, psychological and social sport experiences, favorable to the integral development.

At this stage, the children present egocentric characteristics related to their **social development**, demonstrating some difficulties to comprehend the others' space and role, which indicates limitations in cooperating along with the games and to deal with losses. The egocentrism also limits the comprehension of moral values and social rules. It is common that they simply copy some behaviors or obey an adult authority and, in other moments, they do not obey some rules because they are not cognitively able to understand why. Many times the children express their emotions in a physical way, demonstrating their anger with aggression or joy with hugs because they have difficulties in verbalizing them.

The egocentrism impacts the relationship with their peers, but the socializing opportunities will contribute to the gradual development of the ability to interact and comprehend others, so it is essential to stimulate the association with a diversity of children.

The children's relationship with their family is determinant to the practice beginning and maintenance because it is a phase that they are starting to build habits, so the family is responsible for stimulating and offering a diversified and joyful practice. When there are **educators**, the relationship may be light, fun, of the child's conquest and engagement in sport. There are no benefits in requests or pressure at this moment, neither for results nor for the sport choice. The experiences within this field may be turned to success, stimulating a positive self-concept, motivating the children to practice several

sport activities, enabling them to live in educational environments (in and outside school) that strengthen lifelong learning.

THE SPORT

The experiences

In the first years of childhood, sport may be introduced in a fantasy and imagination environment, awakening the children's curiosity and wishes **to play of practicing sport** in their own way. It means that the child's games can even be similar to some sports, but most of them are different, enabling sports for children in early childhood.

Playing is the most spontaneous way of developing children integrally because it is the way they become aware of their bodies, movements and the connections with the symbolic and ludic world. The movements experienced in games and child's games promote children's physical motor, psychological and social development.

The physical literacy process starts on this stage, including self-confidence development, motivation and body competences. All of these aspects will build the basis for a healthy and lasting engagement with the body and sport practices throughout their life, even for leisure or for high-performance, considering the Medal Pathway.

KEY-CONCEPT

Physical literacy corresponds to the motivation, confidence and physical competence development process, a series of knowledge that stimulates the people's involvement with physical exercise for their whole life. Sport Development Programs around the world have adopted this concept to highlight the body and sport activities that are offered throughout the early stages of childhood development, as the basis of an active lifestyle and athletes' development.

Not investing in physical literacy in childhood reduces the quantity and quality of athletes in development, damages the sport participation on the Medal Pathway, aside from disturbing the children's healthy integral development.

The sport experiences in the **Explore and play** stage contribute to the children's healthy holistic development, since they are adapted to their possibilities and necessities. Thus, the sport experiences may:

- Emphasize free practice situations in safe and body challenging environments. A great example are the playgrounds, which offer several joyful body stimuli.
- Stimulate the general and diversified body competence development, exploring all parts of the body in different environments (aquatic, terrestrial, nautical etc.), with different equipment, as the

beginning of the physical literacy process when part of structured programs mediated by Physical Education professionals.

- Use games and child's games as main development and learning strategies through exploratory teaching approaches, with neither right or wrong, nor correct patterns of movement execution.
- Emphasize the participation and joy in informal competitive situations, modifying them to fit the children's particularities, who play to compete at this stage. Guarantee inclusive learning environments and with neuter gender to promote an equal access to all children, girls and boys, with or without disabilities. The development of boys and girls is similar at this stage, so every sport practice and games may be experienced together.

THE MANAGEMENT

The main challenge for every adult and organization that promote the first sport experiences to children along the **Explore and play** is to respect their particular development process, without expectancy, exigences or formal sport structures at this moment.

The family is the starting point for the first children's sports experiences towards physical literacy. The child's games may be part of the daily life in a spontaneous way, so they can freely explore their movements in safe, but in challenging environments that present a wide stimuli variety. At elementary education, teachers also have an important role in offering children's and body games opportunities.

The professionals must have a deep understanding of the infant development and competences to work with children at this age, more than being sport specialists, because the initiation in some sports is common, especially at these formal practice contexts (like clubs, NGOs, sport schools, academies etc.). The concern must be about providing an enjoyable and safe environment of discovery for a healthy practice.

IT IS UP TO YOU NOW!

Adults are patterns of conduct, and the elite athletes of your sport may also positively influence the families – adults and children – in adopting an active lifestyle, besides being important spreading spokespeople of the sport in the population. Have you ever thought about which communication and divulgation actions may your national federation do to approach the infant public, also to get acquainted with your sport and even contributing to a healthy life?

One of the key points to promote children's physical literacy is to offer a safe, challenging and diversified environment to explore the body's creativity. How can your sport cooperate? Have you ever imagined an Olympic playground? How can you adapt your sport to become toys in a playground? Which spaces, equipment and materials can be developed? Who are the potential partners for an initiative like this one?

If your sport already offers a formal practice to the first childhood children, what about developing a program or document with orientations to the Physical Education professionals who work with this age? Which would be the key-elements that your sport could contribute to the children's physical literacy?

Table 3 - Experience and Play stage synthesis

| EXPLORE AND PLAY | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERSON | | |
| APPROXIMATE AGE: FROM BIRTH TO +/- 8 YEARS OLD | | |
| <ul style="list-style-type: none"> • Growing and development of the bone, muscle and cardiorespiratory systems. • Brain and motor functions of the volunteer control development, which promote coordination and basic motor actions development. • Language development. • Gain in autonomy and creativity. • Beginning of the self-concept and self-esteem development. • Low capacity to concentrate for long periods. • Relates with the world (people and objects) through imagination because of the egocentric stage. • Family is a strong influence in building habits of body activity practice. | | |
| SPORT | | |
| FREQUENCY | EXPERIENCES | COMPETITION |
| <ul style="list-style-type: none"> • 1 or 2 times a week. • 20-60 minutes of structured activities. • Daily hours of free practice with games and children's games without an adult mediation. | <ul style="list-style-type: none"> • Inclusive, safe, joyful, challenging and mixed. • Games and children's games for physical literacy in diversified environments (water, sea, grass, sand, track, court etc.). | <ul style="list-style-type: none"> • Informal and experienced from infant games without adult interference. |
| MANAGEMENT | | |
| ACTIONS | | INDICATORS |
| <ul style="list-style-type: none"> • Sport divulgation to promote the children's physical literacy and an active lifestyle for their families. • Support the professional development (managers and teachers) to work in childhood structured sport programs. | | <ul style="list-style-type: none"> • Popularity of your sport among the infant public and their families. • Quality of the sport experience structured programs. |

2.2

PLAY AND LEARN

This second stage corresponds to the first formal contact with sport, mediated by coaches, in structured programs of the sport initiation in clubs, NGOs, sport schools, among others. It is ideally expected that children learn several sports playing in the second childhood, besides it may happen in other life periods, like adolescence or even in adult life. The stage **Play and Learn** continues the physical literacy process when promoting a multisport initiation towards a general and diversified sport development, with no focus on a specific sport. The pleasure for practicing and the variety of sport involvement opportunities may be stimulated at this stage, which contributes to making children healthier and more active, also benefiting the sport practice throughout their whole life.

CASE: PLAY AND LEARN

Now that they are in the first years of middle school, Caio and Carla continue to explore new sport practices at school. From climbing doorframes, Caio became an aspirant in acrobatics of the circus classes from the extracurricular program (for his mother's pride and his father's despair), while Carla adventured herself in *capoeira* (but what she really liked was to play *atabaque*). In addition, they used to go to the multisport initiation program twice a week, at the employees' club of the company where their father worked. They were in the same group practicing several sport activities, organized in an integrated curriculum, combining ball and striking games, aquatic and individual sports, in a rotating arrangement. Last month, they took part in the first multisport festival of the club and didn't talk about anything at home but this event, especially the ice cream all children received at the end. Then they went on vacation and visited their grandparents, who were retired and moved to the beach. Finally, Carla and Caio saw the sea and were slammed by the waves for the first time, which made them prefer to play with a ball on the sand the following days.

The **Play and Learn** sport initiation programs must guarantee that the children:

- Enjoy practicing sports and desire to continue learning.
- Feel confident and competent to challenge themselves in the multisport development process.
- Build a solution repertoire of body problems that enables them to widely explore the movements, also the most possible diversity of sport activities.

THE PERSON

At this second childhood phase, the children go through a more balanced and less accelerated development process than the previous one. They have slow and regular increases in high and body

mass, related to **physical development**. It is a previous period to the pre-puberty growth spurt, in which boys and girls are similar in growing patterns.

When they are well stimulated by the environment, they learn sport abilities faster because of a higher sensorial and motor system organization. These progresses are noted from the increase of motor coordination and sport abilities. Though, there is a limited potential of abilities to be learned at this period, and the stimuli variation is essential to expand the development basis, which may be transferred to other sports throughout the CDA stages.

Regarding **psychological development**, children begin with a very concrete perception of the environment, gradually evolving to a more abstract thinking. They develop better comprehension abilities of their own emotions and the ones from other people, improving the relationship complexity with peers and adults. On the other hand, since the beginning of this stage, children are very inclined to imagine a precedent for creativity. They are curious, but with a diffuse attention, without concentrating for a long time, thus they do not pay attention to long lasting explanations and get easily distracted in long lines waiting for an exercise. It is common that, at the end of the stage, they become more self-conscious because of the intellectual development, improving the rationalization about their experiences.

Regarding **social development**, language helps to understand and take their mates' opinions and feelings into account. They become gradually more able to achieve team actions towards a common goal in a game or for fun. They understand the rules better and develop moral judgment. They become more independent and begin to develop socioemotional competences related to values and attitudes, like confidence and respect to their mates and the rules. So, sport practice offers unique opportunities of ethics and moral development.

As they grow up, children become able to deal with new and even more complex situations. They get interested in their own learning and wish to assume more responsibilities. Thus, there is a more conscious engagement in sport and in their preferred activities, aside from the evident enjoyment for competition.

In the **Play and Learn** stage, **family** continues to be the main influencer to children, either from a structural point of view as to an emotional and motivational support. However, as the cognitive and social development progress, the relationship with **peers** and belonging to a social group become more relevant, which may positively impact on the self-esteem improvement and on the sport program permanence. coaches have an essential role in presenting sport as a positive and inclusive experience for all children, keeping the focus on the enjoyment and diversification of the experiences for a vast learning of varied sport practices.

GIRLS AND WOMEN: CAN BOYS AND GIRLS PRACTICE SPORT TOGETHER?

At the **Play and Learn** stage, boys and girls present similar growing and developing characteristics and, if they both are equally stimulated along their childhood, it is expected that they have an analogous sport development.

Although, boys and girls hardly ever have the same body experience opportunities. It is known that boys are more stimulated to practice physical activities and sports, while girls face difficulties and cultural barriers with this issue. Thus, the sport groups are commonly filled by boys, who practice sports since they were young and by few girls, who generally take part, for the first time, in a systematized practice.

The unequal opportunities appear in the different sport performances, evidenced in the sport initiation classes with mixed groups. These differences are increased in sports traditionally linked to men, like team and of contact, which still face social resistance to engage girls and women. The proposed stimuli tend to highlight the boys' performance and engagement, and to limit the girls' participation and development. Mixed groups may create uncomfortable environments and are not so safe for the girls' sport experience, exploration and development.

Though, we must be careful in generalizing this situation, because there are girls who prefer to practice with boys. It is important to stimulate the children in a way that respects their individualities and to propose gender stereotypes deconstruction activities and situations. Besides, it is important to offer an inclusive environment so the girls may feel comfortable, supported and encouraged to practice sports.

An alternative to increase the participation of girls can be to offer a group only for them, with safer and more comfortable environments for the practitioners. Among the girls who prefer to practice without boys, studies indicate that there are several reasons for that, including the absence of a frequent comparison with boys, more opportunities to develop abilities and relationships, more enjoyment and their teachers' attention.

THE SPORT

The Learning

The transition of informal sport practice to more formal ones may happen gradually, throughout the **Play and Learn** stage, so the children experience the formal structures of sports without reproducing the adult sport itself.

The greatest challenge for the sport organizations that promote sport in childhood is, undoubtedly, to guarantee a pleasant, joyful and inclusive sport experience, avoiding the selectiveness, the early specialization, the physical and psychological overloads. When they wrongly occur, the high-performance sport is reproduced at this stage. The "mini" sports versions that simplify rules and adapt facilities and ways of practicing are highly recommended to lessen these problems in initiation.

The sport initiation programs at **Play and Learn** must be structured respecting and answering the children's development needs, also committed to the physical literacy process, as at the previous stage. Thus, they may be characterized by activities that emphasize a playful and diversified practice,

which involve the necessary quantities and qualities for the abilities' development, according to the individual maturation process of all interested children, without any kind of selection. The stage aims to offer successful positive experiences to spread sport as a childhood healthy practice.

The playful dimension of the sport initiation activities is guaranteed as they include the following characteristics, among others:

1. They are pleasant and the children play because they like and want to.
2. They are challenging, with an adequate level of difficulty and unpredictability, which motivate the children to participate and overcome them.
3. They are possible to be successfully done, thus adapted according to the children's competences.
4. They are symbolic with connections and meanings for the sport experience related to their cultural and historical aspects, engaging children through imagination.
5. They are constructive, which demands an active involvement of the children in their learning process, so they may learn the multiple elements of the sports.

The games continue being the main learning strategy of the **Play and Learn** programs because they can be used in an informal, playful and diversified manner. Thus, the children's creativity and autonomy are stimulated to make them build body responses and adjust to several sport situations. It is through the games that children develop motor abilities, general tactical competences and physical-motor abilities, without the necessity to dedicate time for specific physical preparation activities. The rule games are likewise an essential resource to promote psychological, moral and cognitive development.

It is also desirable that experiences with a little informality may be presented in sport initiation programs, when reducing the interference of coaches while the children are practicing. This happens from more exploratory pedagogical approaches, in which the children are stimulated to use their creativity to suggest activities, the way of practicing and to experience succeeding and failing attempts of learning from mistakes, without following a unique and correct pattern of movement. At this stage, it is imperative to use the children's curiosity and imagination to stimulate their creativity so they may develop important behaviors for the subsequent stages of the sport development.

The sport diversification, a **Play and Learn** characteristic, privileges the expansion of the movement experiences with every part of the body (lower and upper limbs, trunk); on varied surfaces (inclined, straight, large, narrow, unstable, slippery, high, low etc.) and with varied move parameters (rhythm, sense and direction, points of contact etc.); manipulate objects of several sizes, weights and textures (balls, discus, hoops, rackets, bats etc.); explored in different decision making situations (throw, shoot, catch, strike, grab, kick, knock down, jump, land, climb, balance, slide, roll, turn, swim, dive etc.) and environmental conditions (court, track, grass, swimming pool, sea, sand, snow, ice).

The widest these elements combination may be, the more physical literacy opportunities and children's sport development there will be, thus building the basis for their future sport experiences, either for leisure or as a future high-performance athlete.

IT IS UP TO YOU NOW!

While thinking about building a long-term development curriculum of your sport, identify the main elements that may be developed at the **Play and Learn** stage, which emphasize the general body competence development.

It is important to offer diversified experiences to expand the contents of learning beyond the specific ones of your sport, even in a single sport initiation program, to guarantee a general and healthy sport development. It prevents physical and psychological overloads, which tend to damage the development and threaten the children's permanence in sport. It is also valuable for children to identify sports that they may feel comfortable and interested in, increasing the chances of sport engagement.

The load of sport practice requires attention, considering the weekly frequency and daily sessions duration, which must be reconciled to other typical childhood activities, like school and leisure.

The Competition

Competition is a crucial element of the sport experience in any CDA stage. At **Play and Learn**, the competition is an important learning strategy for the children's competences development that guide them to achieve a sport readiness stage and enable them, progressively, to take part in more formal competitive structures at the following stages.

Competing in childhood may also be a playful experience – pleasant, challenging, possible, symbolic and constructive – for all children. It may favor a high level of informality and diversification, like the learning activities. Festivals are a good example, which are organized with multisport activities, collective and individual challenges: child's games and games in a joyful environment, with innumerable success opportunities for all children, without excessive emphasis on the results.

The dispute system may also be simplified, with an adaptation of games or events and facilities. Besides, it is important to create systems with no elimination, to increase the children's participation opportunities in competitive events, so they may be exposed to potentially educational situations and may develop competences to compete.

The referees' board training for a pedagogical work in competitive events is welcome, but it is important to stimulate coaches or more advanced athletes previously prepared to work as referees, reinforcing the informal and educational quality that these experiences must have. Besides, the referees' alternative reduces the competition's costs, increasing the possibility of competitive experiences for children.

Carrying out local events and internal competitions may be frequent all year long, avoiding the ones that demand great movements and long periods outside home. Besides the low costs, these events facilitate harmonizing school and other activities of the children with the sport practice, with no harm to their integral development. Thus, it may contribute to a greater involvement of their family and community, stimulating the community sport culture.

Olympic Values

The initiation in sport may also mean in its values.

At **Play and Learn**, **excellency** is expressed in the self-overcoming dimension and must be the main focus of the sport programs, stimulating children to do their best to learn and evolve, without emphasizing the comparison between them. The intrinsic self-motivation provides the self-confidence as an essential motor to continue improving themselves, searching for excellency.

Decentralization expands the opportunities of socializing and sport assumes a relevant role as an environment for building relationships, in which **friendship** becomes one of the childhood sport experiences results. Being part of a team and cooperating for a common objective are experiences that children go through in games, that approach and nourish partnerships for beyond the sport lesson moments.

Respect is a key-value at **Play and Learn**, once there are important progresses in the moral development and a consequent comprehension of the social norms and the sport rules. Again, the sport experiences they have through the games rules and the moral dilemmas that emerge from them are singular, thus they become opportunities of respect and honesty exercising, essential attitudes of sportsmanship, when properly mediated by coaches.

THE MANAGEMENT

The main role of the management at this stage is to ensure that its characteristics may be preserved, without emphasizing actions towards early specialization, neither focusing on the practice nor on a single sport formal competition. The national federations can participate or even lead the creation and fulfillment of the sport adapted versions for infant practice, named mini sports, like mini volleyball, mini athletics and mini basketball, among others. Besides, it is important that they support local federations in spreading the "mini" version of specific sports, producing communication materials, events, courses and sport equipment.

The national federations may stimulate that diversified events can be carried out, deciding when and how the competitions may happen, adjusting them to **Play and Learn**, considering the importance of competition as an educational element. It is also important to facilitate coaches' development programs and officials to work in training and competition, so they may have a pedagogical performance in the competitive events, at this stage. The families are also public for the educational

programs, thus taking part of their children’s sport life in a healthy and encouraged manner, understanding the main objectives and characteristics of the competitive participation.

IT IS UP TO YOU NOW!

The effective implementation of a long-term sport development program of a specific sport requires an alignment of the competitive system to each stage’s objectives and strategies. Does your national federation already carry out events and competitions at this stage? If it does, which are the changes and adaptations that can make them more adequate according to the Play and Learn recommendations? If it does not, what about starting to build a plan for events, festivals and infant competitions that stimulate the engagement of children to your sport, emphasizing joyful, multisport and inclusive experiences? Who are the people and key-organizations that may take part in this planning?

Table 4 - Play and Learn stage synthesis

| PLAY AND LEARN | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERSONA | | |
| APPROXIMATE AGE: FROM ABOUT +/- 6 TO +/- 12 YEARS OLD | | |
| <ul style="list-style-type: none"> • Slow and regular increases in high and body mass. • Great learning potential of more complex motor abilities. • From a concrete perception of the world, children gradually evolve to a more abstract thinking, improving the decision-making processes. • Children are imaginative and curious, but with a low capacity of concentrating for a long time. • Better understanding of the mate's opinions and feelings, as well as the rules. • More conscious engagement in sport. | | |
| SPORT | | |
| FREQUENCE | LEARNING | COMPETITION |
| <ul style="list-style-type: none"> • 1 to 3 times a week. • 40 to 80 minutes per session. • Daily hours of free practice with games, without an adult mediation. | <ul style="list-style-type: none"> • Low intensity and gradual quantity increase (hours and days) throughout the years of this stage. • Joyful and inclusive multisport practice. • Minisports. | <ul style="list-style-type: none"> • Learning strategy alignment to the multisport, playful and inclusive stage quality. • Adapted, local and low-cost competitive experiences, to expand the participation opportunities of more children. |

| MANAGEMENT | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ACTIONS | INDICATORS |
| <ul style="list-style-type: none"> • Development and spreading of your sport's mini version. • Professionals board development (coaches and officials) with specific qualifications to work with children for a healthy infant sport strengthening. • Educational programs for the families, stimulating a healthy participation in their children's sport life. | <ul style="list-style-type: none"> • Number and quality of the offered initiation programs. • Quantity of practitioner children by gender. • Occupation/frequency/permanence rates in initiation programs. • Families' satisfaction with the programs. • Number and quality of events organized by federations. • Number of participants in events. • Number of qualified professionals to work with this age in sport programs. |

2.3

LEARN AND TRAIN

At this stage, the practitioners begin a specialization process in one or in a group of sports. The systematized training processes and the participation in competitions become also more specific.

CASE: LEARN AND TRAIN

The under 14 team was very diverse. Carla and Rafaela brought a multisport background they experienced at the club. They became good friends and training partners, but clearly different. Carla was powerful, fast and grew a lot the previous year, while Rafaela was the shortest and skinniest girl of the team.

Marina came from another state two years before and did not have this diverse experience: she noted how it was important in training, but still she liked to train a lot, being one of the most dedicated of the team, so much that she got a place to practice another sport at the club and in the dance group.

The other girls represented this diversity too. Some of them were already dating, others still used to play with dolls (usually hiding it, fearing the group's reproval). Some other girls had other interests. The demands were increasing and it was becoming difficult to conciliate the homework, the desire to go to parties and the household chores. Some of them had a great opportunity to feel competent and powerful in the group. Many of them dreamt to achieve the national team, some from a genuine way and others from their family and friendship circle influence, also taking part in competitive teams. Some girls did not even know why they were there.

This was one of the coach's great challenges: making different girls part of a single group, cooperating with each other to achieve the greatest sport development of each one of them. He could count on an assistant, which enabled him to share the attention to the girls along the trainings, managing the specific demands each one required. Besides, they talked everyday about their development and they faced difficulties when dealing with an adolescent group.

In the bus, returning from a competition – once again with irregular performance –, they were thinking about ways to show to the girls other indicators of success, beyond the frustration, and talking about the meeting with the families they would carry out the following weekend. They intended to have a regular contact with the families, a not so easy task, but they knew it was essential to keep the girls' dedication to trainings and competitions. Carla's parents were always present! They even shared the duties to be able to attend her and Caio's activities, the twin brother.

Henrique, Caio's best friend, was a few months older and physically more athletic. It is interesting that, even with different performances, they got along so well and helped each other with the team appointments.

Henrique's classmate César was also part of this group and he was in his first club training experience. He was getting accustomed to a sports appointments routine. He remembered the day that he almost slept during a school test in the morning, after arriving home late the previous evening because of a tournament. He liked the club environment a lot, mainly to compete, but he had to make a lot of effort to keep his regular attendance. He decided to train this year to check if he could follow the athlete's journey. Other boys, like him, were at the same experiment moment.

The women coach and the coaching staff, specially the psychologist, planned more and more strategies for the group perception of the sport career demands, checking their interests and affinities. Considering this focus, the multidisciplinary teamwork became even more evident. Their routine included physiotherapy, nutrition and social work. Phew! Even so, César and Henrique could rehearse once in a while with the rock band. They were fine with the activities and their educational performance, but a little anxious with the concert they would take part in the club's activities closing the following week.

Throughout this stage, the sport program must be developed in a way that the youth:

- Get engaged in their performance improvement, searching for a balance between the sport practice and the other personal, social and educational appointments.
- Improve the emotional and body competences to deal with the initial and progressive loads of training and competition.
- Demonstrate development potential in their specific sport performance indicators.

THE PERSON

The transition period to adolescence begins at this stage. Growing and development are influenced by puberty, with the growth spurt and the beginning of sexual maturation. These elements arise with cognitive and socioemotional changes, affected by the relationship between the person's genetic heritage (genotype) with the environment conditions (phenotype), like nutrition, the exercise and quality of emotional and social interactions each one experiences.

Regarding **physical development**, the girls begin puberty about two years before the boys, with their growth spurt approximately between 9 and 11 years old, while the boys start this period between 11 and 13 years old. The early beginning of the girls makes them reach the height and weight growth speed too, which enables a short period of bigger physical growth, hormonal increase, cognitive and biomotor development, with meaningful increases in power, speed, resistance, coordination among other psychophysical competences. However, at the middle of adolescence, the boys tend to go through this fast growth and development process, getting advantages related to these variables.

Sexual maturation occurs in a predictable events sequence, at this stage, noted from some milestones like the increase and growth of facial, underarm and pubic hair, voice modification, genitalia development in both sexes, including the girls breast budding. Although, the exact moment of the sexual maturation beginning varies a lot, it is more marked in girls because of the menarche.

Another important factor to be considered is the cultural tendency of an earlier biological maturation beginning in the population, along the last years. This is even more accentuated in young athletes, influenced by the environmental factors and by a mistaken tendency to select early-matured athletes, in view of momentary competitive advantages because of a greater physical development, while competing with their equivalent chronological age peers, but with a normal or delayed biological maturation.

Regarding **psychological development**, it is an intense moment that may generate doubts and insecurity about their own body associated with sexuality, with a lot of discoveries, desires and the beginning of affective relationships. Self-concept and self-image become important aspects in the autonomy development and the youth identity building process, which are positively influenced by a support context, the individualities valuation and adults' social feedback, like their family and coaches. In sport practice, losses and victories tend to be highlighted, emphasizing the importance of establishing and sharing other success criteria related to the sport development. Within socioemotional context development, this condition contributes to avoid giving up besides providing a more assertive performance evaluation. There are meaningful progresses, like a better understanding of abstract ideas and logical reasoning, that facilitate tactical-strategic sport learnings and decision-making processes in the sport practice and in their life, in general, specifically related to **cognitive development**. Aware of their potential and preferences, youth tend to identify themselves with specific sports and practices, in a more genuine and spontaneous way.

The **social development** is underlined by the interaction circles expansion, like searching for affiliating and pertaining to a group of peers because of the independence process, including the discovery of new social references beyond their family. The youth behavior becomes more diversified and accessible to the sociocultural environment influences. They are used to emotionally connecting to adults like their coaches, who may assume mentoring roles.

The **family** will always be important and their support provides safety to the adolescents, besides stimulating them, but the family leadership and reference role makes room for other leaders among the **peers themselves and the coaches**. Thus it is crucial that the reference of this kind of professional be positive, supportive and based on pro-social values. It is also important that the coaches may identify adolescents able to perform positive leadership with the team.

THE SPORT

Training

The **Learn and Train** stage is an essential **moment to identify those who will follow the Medal Pathway**, in the direction of high performance, not only because of the demonstrated development potential, but also from the environment characteristics, as long as it is the beginning of the specialized practice. Thus, adopting practitioners' retention strategies is crucial. It is also important

to guarantee health care, injury prevention, access to adequate sport facilities, regular stimulation and a good understanding about the person's development, contributing to the practice continuity and low evasion.

The training environment must be carefully planned to support, evoke healthy relationships – either between the peers or between athletes and coaches – and promote the values and competencies improvement. All of these aspects may contribute to making adolescents feel confident, make choices with autonomy, assume pro-social behavior and be successful in their relationships, in sport and in other initiatives.

The commitment to training and competitions is increased at this moment. It is important to consider a progressive expansion in the training duration, quantity and intensity, regarding the planning. Although the specific practice may be peculiar at this stage, multilateral training continues to be an important strategy of global and harmonic development of young athletes.

The conditional capacities training is highlighted because of the puberty period, but it is necessary that the development may be limited by the balance of loads, with the introduction of specific activities, emphasizing the usage of free weights to guarantee the movement execution quality.

The training must present more and more the characteristics and essential contents of the sport in question, with the advent of specialization from the **Learn and Train** stage. Thus, it is fundamental that coaches and managers respect the specific practice nature in the training sessions, avoiding decontextualized activities.

THINK ABOUT IT AND MAKE A NOTE

Which are the essential characteristics and contents of your national federation sports? Is this idea shared among the different agents that work with the sport?

The planning may also include recovering periods to guarantee a balanced development, enabling young practitioners to dedicate themselves to other important activities in their life, like school, family and friendship circle.

It is recommended to adopt not only training loads, tracking and monitoring strategies, but also of sleep and feeding; thus, based on the collected data, advise young athletes to follow adequate routines to their sport development process.

GIRLS AND WOMEN: THE SPORT PRACTICE ABANDONMENT IN ADOLESCENCE

It is known that the highest sport practice abandonment takes place in adolescence, affecting more girls than boys. It is important to know the reasons for abandonment so it will be possible to elaborate strategies to stimulate the maintenance and development of these sport practitioners.

Among the main reasons that drive girls to abandon the sport practice is the lack of a professional career perspective. The difficulties faced in the adult stage related to incomes and the social acknowledgement influence the decisions made in adolescence. We recommend that the sport organizations promote the contact and experiences sharing between the adolescents and athletes considered models for them, who may present the several professional possibilities in that sport.

The relationship with the coaches is also a significant aspect to sport maintenance or abandonment. Girls report that excessive requests and the lack of understanding the modifications experienced at this period – like the physiological maturation changes causing shame, insecurity and prejudice many times – make the sport practice difficult. We reinforce the importance of including reflections about these characteristics in coaches development courses, understanding the personal and social demands that practitioners go through in a connected way, at this stage. Thus, we recommend that the courses may strengthen the importance of propitious sport environments for the establishment of relationships and friendship among the practitioners, once the peers' support is indicated as one of the main factors for the sport's permanence.

The cultural constructions are also a limiting factor at this CDA stage. Questioning about gender identity and sexual orientation, especially in sports traditionally related to men, is pointed out as one of the main obstacles to maintaining adolescents in sport. We recommend that the sport organizations provide educational actions for coaches, family, managers and athletes to deconstruct gender stereotypes still faced in Brazilian sport.

The Competition

The competition continues to have a complementary role in training at the **Learn and Train** stage. The competition format starts being organized in more formalized systems with scoreboards, tables and results. Although the search for objective results with victories and titles begin at this stage, the focus continues in the competing **process** and in the long-term holistic sport development. Thus, the competitive experiences must include modifications in regulation and in the competition content, to guarantee a great participation and the essential elements of development from this stage. These adequations may provide enough challenging competitive participation, enabling the athletes to deal either with victories or with losses. The competitions must practice the recent training contents, which stimulate the sport learning. It is crucial to avoid desistance and humiliating situations.

It is important to guarantee equal conditions to young athletes, either about the number of participations or their quality, as well as adequate challenges' opportunities to their sport development moment. It is possible to think about competitions with different levels throughout the year, so the teams may choose which they will take part in and with which athletes, as well as to offer different levels in the same competition. It can be organizing the teams in series or divisions, assuring parity through the qualifying or even managing the athletes' participation along the games and series. This condition contributes to athletes in the same development level so they may compete together, making the competition more meaningful to their evolution.

It is interesting to invest in shorter and more frequent seasons, in the beginning of the **Learn and Train** stage, enabling a format and challenges diversity, local and regionalized events, avoiding great movements and any difficulty in the commitment to the participation. The competitive season becomes more extended at the end of the stage. The trips become more frequent as well as the athletes' selection to take part in competitive events.

The Olympic Values

At **Learn and Train**, **excellence** becomes a part of the sport development routine in a more evident way. The athletes at this stage have to be more and more responsible and dedicated to the search of their performance improvement, always with the coaching staff support, who may be even more aware of the performance indicators and of each individual development.

The individual differences and the ones arisen between the groups that are formed in and outside the team become evident. This fact reinforces the importance of **respect** as a value present in daily life. Respect to themselves and to the intense changes that are happening; respect to the peers' choices; respect to the different authority roles – coaches, interdisciplinary team, managers, referees – and respect to the rules that conduct sport, including the anti-doping ones.

Therefore, it is recommended that the different sport institutions promote actions to stimulate these good values, like a gradual contact with themes related to Anti-Doping Education and Fair Play. The intention is to stimulate and make the athletes and the whole sport community aware of the

importance of protecting their health and fair play, respecting human nature and justice principles. Other issues may be discussed in this period, for example: the doping concept and its history; the World Anti-Doping Agency role; the existence of a Substances and Methods List that the athletes cannot use or be subjected to; and the social and health consequences from violating the anti-doping rules.

At a time when group identity is so relevant, **friendship** and dedication to good relationships can contribute so much to the youth's holistic development. The coaching staff and the training mates become present in most of the week's routine. Friendship cultivation is an important support for the youth journey to high performance sport, in and outside the group.

THE MANAGEMENT

The sport institutions face big challenges to guarantee adequate facilities to sport specialization at this stage. It is necessary, many times, to connect partners about using the space and equipment. The national federations may support this process by constantly making and updating institutions and facilities mapping, related to each sport. Building partnerships to import or access alternative low cost, but within the specificities, equipment is essential to enable the access. Besides making this information available to the interested public, it is fundamental that the national federation facilitate the approach to each other.

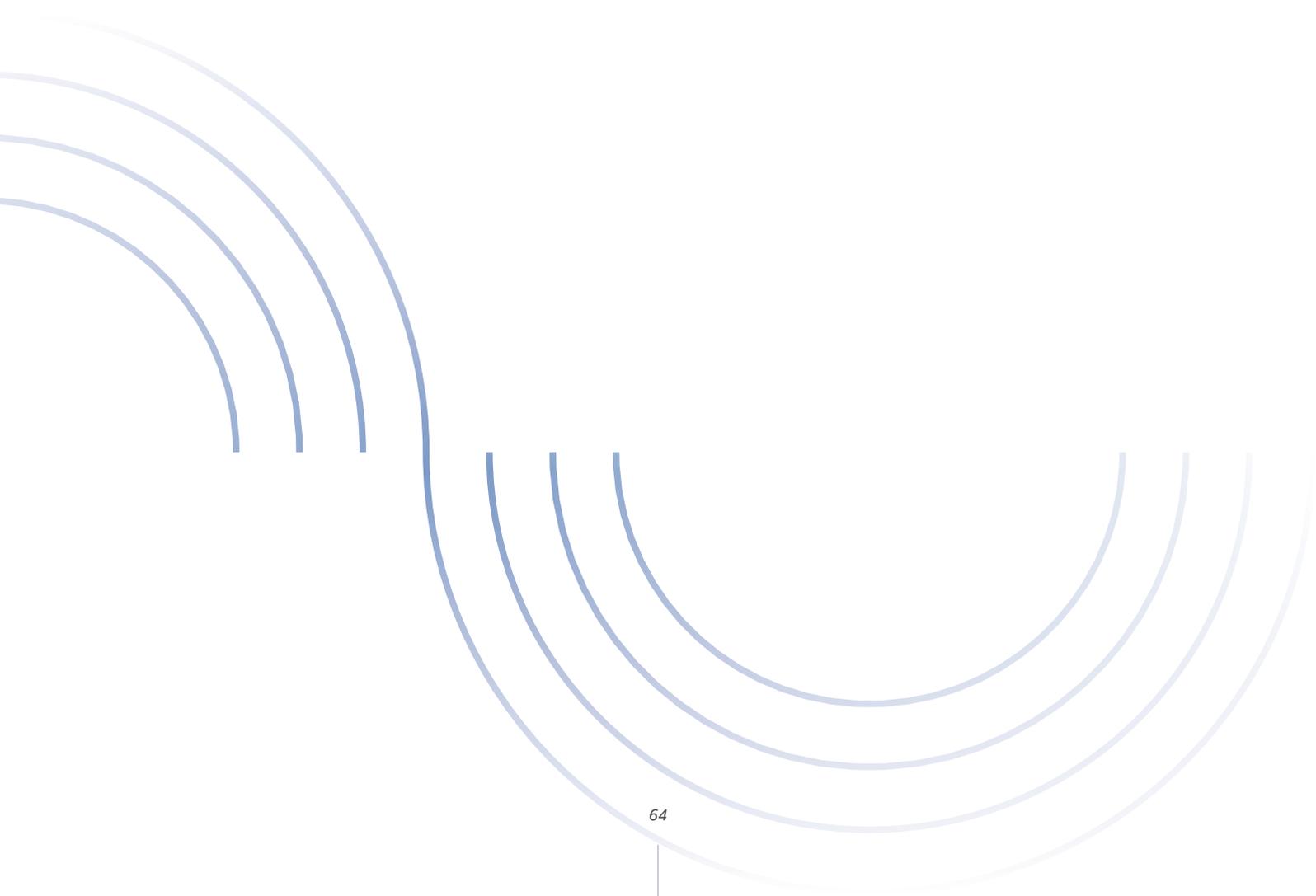
The stimulation of adequate competitions is another great necessary action of the management. It is necessary to invest time and personnel to plan and implement competitive experiences adapting to the formative needs of this stage, according to their objectives and avoiding the adult model. Another benefit of the adaptation is the cost diminishment, enabling the biggest possible number of institutions and athletes' participation.

The formation of many sports national selections begins at the **Learn and Train** stage, an opportunity restricted to a small participant number. Considering this moment's dynamism, the national federation may structure the call-up in a way of expanding the number of selected athletes and the quantity of call-ups throughout the year. Besides, it is interesting to provide alternative tracking strategies of the other athletes who did not achieve, possibly just at the moment, the performance criteria to be selected. Considering just a sports result conquest may not be the most adequate. There are other concerns to be highlighted: the systematization and the clearness related to these criteria.

This stage, in some sports, is also characterized by invitations to other teams, even abroad, so it is important that the national federations create regulative tools for these transferences, preserving the youth rights, respecting the current legislation, besides keeping an attention to the development process on those who are in a foreign country.

Table 5 - Learn and Train stage synthesis

| LEARN AND TRAIN | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERSON | | |
| APPROXIMATE AGE: FROM ABOUT +/- 9 TO +/- 16 YEARS OLD | | |
| <ul style="list-style-type: none"> • Important physiological, physical and behavior changes because of the puberty proximity at the beginning of the stage and throughout the period. • Youth in distinct moments of the growing, development and maturation process. • Intense moments and insecurity about their own body. • Significant self-concept and self-image in autonomy development and identity building. • Better understanding of abstract ideas and logical reasoning. • Search for specific sports. • Expansion of relationship circles, search for a group belonging. • The leadership and model role changes from the family to other leaders. | | |
| SPORT | | |
| FREQUENCY | EXPERIENCES | COMPETITION |
| <ul style="list-style-type: none"> • 2 to 4 sessions a week. • 50 to 120 minutes per session. | <ul style="list-style-type: none"> • Planning and training based on the essential sport characteristics. • Maintenance of the multilateral training, with an increase of the specific training duration, quantity and intensity, in a progressive way. • Emphasis to the conditional capacities training. • Attention to the individualities. | <ul style="list-style-type: none"> • Focus on the competing process, instead of the objective results. • Adaptation of the competition models to guarantee quantity and quality in the competitive experiences. • Equal conditions to guarantee parity from qualifications or in the participants management throughout a match or series. |
| MANAGEMENT | | |
| ACTIONS | INDICATORS | |
| <ul style="list-style-type: none"> • Mapping of institutions and places of practice. • Stimulation of adequate competitions. • Board of professionals' development (coaches and officials) with specific qualifications to work with young athletes in development. • Athletes' sport development monitoring – the selectable and not selectable. | <ul style="list-style-type: none"> • Number and quality of the programs. • Number and scope of the sport institutions. • Number of the sport practitioners – boys and girls (national, local). • Number and quality of the competitions. • Interaction between practitioners/participants in competitions. • Number and qualification of officials to the specific work at this stage of competitions. • Number and qualification of coaches to the specific work with athletes at the stage. | |



2.4

TRAIN AND COMPETE

This stage underlines the access to the Medal Pathway and consists in two important sport career periods: the passage through pre-junior and junior age groups up to the transition to senior athlete. The training learning process, begun at the previous stage, is intensified with the training and competitions cycle demands.

It is a period of increasing the training strategies and methods, which may be even more conscious about the performance as well as the recovery, prevention and holistic learning, so athletes can expand their conquests to other contexts of life.

At this stage, there is an increase in the competition's quantity and complexity. The training process is a path and the competition is the focus to be followed in their Medal Pathway development.

CASE: TRAIN AND COMPETE

Carla maintained stable results, without great conquests until junior age group. Because of an early maturation, her coaches were not so sure if she would achieve satisfactory levels to reach the high-level sport performance. In the beginning of junior category, Carla had a student-athlete double career, diminishing her development in sport temporarily, in comparison with the other girls. Despite the double journey, Carla has always been an example to her team. She was the first one to ask for psychological and nutritional support, inspiring her mates to do the same. Her results were negatively affected because of the double career, but her coaches adapted the training and the competitive calendar, enabling her to take part in training and in the most important competitions. Although the behavior aspects were mature, her competitive development was late. While her teammates started the transition to high performance, Carla did not succeed in being called up to international competitions. She was resilient, though, and could always count on her family support, including her brother Caio, who denied a formative sport contract from a great club to dedicate to his studies full-time. Another support she had was Rafaela, a friend who had become an athlete of another sport.

Marina was the last to be confirmed in the team. She was in the second year of pre-junior when she decided to be exclusively dedicated to sport. She stopped training for a few months because of a scholarship she got at an important contemporary dance academy. However, she loved to compete and the sports program environment, so she decided to hang up the dance shoes. Marina had a great learning potential and a good capacity for adapting to different training. She was still in the junior age group when she took part in the Olympic Games for the first time, even with a late beginning of her specialization. It was an amazing experience! She remembered all the details, sensations and how this experience made her sure that she wanted to dedicate the following years to high performance sport.

Henrique's family financial situation got very bad in the last few years. They had to move to a distant neighborhood and it took him four hours to go and return from training. There were ten people living in his house and, many times, there was a lack of provisions for adequate feeding. He had to quit the rock band but whenever possible, he used to go to the concerts with a VIP ticket that Cesar gave him. He moved to the club's lodging at the beginning of youth, given that the family and social surroundings got worse. This move immediately affected his sports performance. From that moment on, he took part in all of the competitions and was selected to the foreign training season, where he could spend some time with prestigious athletes. At the youth, he got great results in every national and continental tournament, and he started to take part in some junior competitions. Although, when he reached the junior age, he went into a stagnation period because of some difficulties in adapting his recovery, feeding and complementary training habits. He was very focused in the command of his main coach, valuing the importance of other interdisciplinary team professionals only when he had a consecutive bad performance, in the international competitions. After being aware of the necessary change to be done, Henrique adjusted his behavior, compared to the international athletes preparation level, and has just reaped the first benefits: at junior age group, he is already an Olympic finalist, and only 20 years old.

A new boy arrived to integrate the team: Elias, who came from another city when he turned 17. He excelled in school competitions and was invited to train in the athletes' development program. He moved to a city ten times bigger than his hometown. He got good results up to youth, but the city move, the coaches change and demands related to the athlete's life made him fail in maintaining the results of the first year in junior. It was also hard to adapt to his school, since the previous one, in his city, was less exigent. Almost two years had passed without him obtaining good results in the competitions, and even not being called up to the national team for a while. He thought about giving up, but his coaches, teammates and the program interdisciplinary team encouraged him to keep going. In his last junior years, Elias started training even better, achieving good results in the main national competitions and was called up, once again, to the national team, representing Brazil in his age group international competitions.

This stage sport program may guide young athletes to:

- Be committed to their performance improvement and adapted to the high performance training, being involved in a higher level, moving forward to the senior athlete's stage.
- May have progressed in the necessary behavior changings to the athlete sport career, engaged in their potential development balanced with the other personal and social demands.
- Assume attitudes and behaviors aligned to the high performance athlete career, understanding the sport science knowledge within their daily routine, being active in their career management, with the interdisciplinary team support.

THE PERSON

The youth age group is underlined by the end of adolescence, while continuing the athletes' development process. The physical growth and the development related to maturation determine increases in height, body mass, hormones and physical capacities. It is important to highlight

that external features like the sociocultural, political and economic environment indirectly impact the sexual and intellectual maturity, thus interfering in the person's development. In junior, athletes continue their development process, more influenced by the training stimuli than by their maturation

course, with the sport performance improvement, in view of the high responsiveness to the training of each athlete.

There is a common age for the end of the maturation process. Although, it is important to be aware of a late adolescence end tendency in the last decades, from 16 to 20 to 18 to 21 years old. Because of their continuous cognitive progress, the athletes are widely open and ready to new and more complex learnings and also to understand the way they learn (metacognition), which enables their own sport practice self-management development.

These cognitive aspects are directly connected to **psychological development**, considering that, many times, the choices are more guided by the emotional state or social pressure than by logic. Becoming independent is something characteristic of the adolescence end and it is related to a greater capacity of taking risks; the adolescents are supposed to analyze situations and predict their actions consequences before assuming them. The adults' orientations and support to protect them from not healthy risks is important for their life, in general, and for sport, in particular, mainly related to doping issues or the choice of following a sports career.

It is recommended that the several institutions and the sport system agents, at this stage of the sport career, have already started anti-doping educational actions in the training routine. Given that the athletes are experiencing the main international competitions in pre-junior and junior, like Youth South American, Pan American, World, Continental and Olympic Championships, it is crucial that they become aware of the anti-doping control at these events.

Another important issue relates to the autonomy of searching information in different platforms, like WADA, ABCD and COB websites, to understand these agents' roles and responsibilities regarding education and doping prevention. The knowledge about COB Anti-Doping Policies, as well as the Brazilian and Anti-Doping World Codes, their respective rules and punishments, in case of violation, are essential to the sport career, besides improving the Prohibited List comprehension and identifying food supplementation needs and risks, for example.

The emotional self-control abilities development (perception, evaluation and emotional control) and the stress management are key elements at this period, demanding the offer of psychological preparation programs to the young athletes, considering they have to deal with emotional overloads in training and competitions.

The autonomy and independence process is also related to social **development**, as much as it invites youth to experience and assume new social roles and greater responsibilities. The conciliation between the team, the club, the connected social groups like family and cultural influences of their context are constitutional elements that impact the development within the sports environment. Therefore, athletes must be socially assisted regarding their generation tendencies, including social media and technologies used.

The **family** is always relevant to the emotional support, the security and the management of the increasing tasks beyond sport, like entering the University, for example. The **peers'** relationships expand, increasing the importance of these affective connections and the complexity of their roles, like older athletes becoming reference, inspiration and even mentors. **Coaches** spend more and more time with the athletes, thus they need to positively influence them and help manage their sport activities, combined with the other external tasks, like study, family and work, increasing the athletes' life quality and the sport longevity.

It is evident that all of these changes (biological, psychological and social), at this moment of the athlete's career, are determinant to the Medal Pathway entrance, so they must be highlighted.

THE SPORT

The training

It is at this moment that athletes tend to quickly develop their potential with training stimuli adaptations. This is also a stage where athletes must persevere to improve their competitive level, resulting in a high psychological demand. The dedication time and all of the processes related to training and recovery optimization are increased. Then, the specialized professional support is even more necessary.

At the **Train and Compete** stage, the athlete's potential development is consolidated, which implies a human being's potential development too. It is important that the national federations track an expanded group of athletes, considering the complexity in predicting which ones will be successful in achieving adult elite sport in senior. Not only the young athletes with international call-up, but also those with a future potential and showing an improvement at the last junior years. Tracking and monitoring strategies are fundamental and must be done in partnership with federations and clubs.

The training demands increase according to the development and maturation progress, as well as the sport results improvement. Youth athletes start increasing the training frequency, including training, recovering and preventing activities, almost every day. The load and quantity are between four and seven weekly training sessions, while in junior the variation is from seven to 12 sessions a week, including physical, tactical-technical preparation and recovery moments.

This training periodicity may vary according to the sport characteristics, also considering the school/ University calendar, besides the sport one, enabling the doubled career athletes to keep studying.

Throughout youth, respecting the training load becomes indispensable, once these maturation final stages are delicate to some physical capacities' improvement. They must be potentialized to move forward to junior, which presents an even higher physical demand.

Therefore, avoiding early exigencies of training and performance is a strategy to increase engagement, balancing the results expectations and the training process planning, adequate to the athlete's possibilities. Respecting a gradual evolution between youth and junior stages is essential. Athletes conciliate training sessions, competitions and even call-ups in senior and in selections (regional, state and national), what may be pondered and adjusted to the personal demands, like family/school/University and social demands, like friends/leisure/culture. In view of these aspects, the training strategies to young athletes may respect the following characteristics:

- Youth athletes are learning how to train in high intensity, while junior athletes have already got this routine as a habit. Besides the difference in quantity (training frequency between 4-7 sessions in youth to 12 sessions in junior), it is necessary to pay attention to the intensity, considering that in both stages the athletes are in development and preparing for a higher level of training and competition, in senior. These sessions include the recovery and injuries prevention ones, as well as educational actions, like the fair play promotion and the knowledge about denouncement channels. The sessions' frequency may be smaller throughout the school term.
- At youth, the end of the tactical-technical repertory development enrichment is highlighted, a base for these competences' refinement and the sport comprehension: athletes become more competent and versatile within their specialization. Junior athletes, in their turn, may search for consistency aligned to creativity.
- In case of sport with specific equipment (e.g.: board, épée, bat), it is recommended to experience equipment and event variations at youth; at junior, it is important to recognize the best equipment and the athlete's strongest event, to be focused and improved.
- If the sport includes game positions (e.g.: team sports), it is recommended to experience these position variations at youth.
- The training process, self-knowledge and autonomy domain must be built. The body preparation routine for training, for example, pre-junior athletes tend to need more orientation and feedback, while knowing their young adult body and identifying individual needs. Junior athletes consolidate this process and start creating personal routines from their individuality.

THINK ABOUT IT AND MAKE A NOTE

What are your national federation initiatives to stimulate the professional development of young athletes and coaches? What is the athletes' education impact when their development is monitored and supported by the team/club/national federation?

The Competition

Competitions represent development opportunities to guide and engage athletes in training, competing and gradually climbing the high performance context.

It must be understood as an essential contest with the necessary opponent, going on in a fair and honest way, so the individuals can discover themselves, obtain self-accomplishment in competing, as well as establish connections with their peers and competitors.

There is countless data indicating that, in most sports, senior champion athletes were not as successful at junior: the problem is not in conquering titles at younger ages, but keeping these results as the main goal, bringing forward the training quantity and intensity to young athletes that would be more adequate to adults.

In most sports, women athletes still find less opportunities to take part in systematized competitions than men, at the **Train and Compete** stage, which indicates the necessity of establishing competitive calendars for them.

When climbing higher competitive levels, athletes probably find frustrating experiences related to their expectations about placings in competitions, a characteristic of the **Train and Compete** stage. Based on a number increase in participation in competitions, another routine may also be added to the athletes' life in transition to elite sport, like trips, team changes, training camps, selections call up, as well as activities related to anti-doping control, like registered testing pool, Whereabouts etc.

Oscillation can be frequent at this stage, so every support and comprehension about the performance analysis, beyond the sport result, are necessary to keep youth engaged in their career. On the other hand, some other athletes may reach results in international competitions, raising high expectations about the sport career and the necessity to deal with new agents – like media, sponsors, sport equipment providers and social media. This moment becomes an opportunity to stimulate some necessary abilities to the sports career, like knowing how to speak to the media and being a good public speaker.

Considering this set of factors that interfere in this phase, the end of the **Train and Compete** stage and the continuity in the Medal Pathway in senior may be established as a crisis period, because it is full of uncertainty and yet unknown changes. Thus, the preparation process must be even more specialized and interdisciplinary, from the beginning to the end of the stage, stimulating an awareness about the period and a better capacity to face the results oscillation when transiting from pre-junior to junior and from junior to senior. For a better management of youth between youth and junior competitions, the recommendations are:

- Youth athletes are getting acquainted with the competition rules and context, and they need to control their sport proceedings and competition routine. This is equally valid to their rights and duties related to the anti-doping control, like therapeutic use exemptions (TUE), basic procedures of a sample collection session and understanding the anti-doping rules specificities, like gender, sports, training and competition period differences.
- Young athletes must establish preparation routines for the competition, also be adapted to the processes of being or not called up for an event, receiving the protagonist or supporting role and

getting the higher attention at the pep talk moment. This consciousness must be enhanced from youth to junior.

- It is important to build, alongside the athletes, performance analysis routines and study about what worked and what needs to be improved, after the competition. The self-knowledge, the competitive context and adversaries study process are essential to the development of autonomous athletes that are able to answer in an innovative level of performance.
- It is recommended that youth athletes try some event or role variation throughout the competitions, as well as in training; in junior, the refinement and preparation for the higher intensity training are expected, coming next at senior.
- Junior athletes must be stimulated to distinguish each competition level and progressively learn the necessary intensity of performance in each event. They may understand the competition performance indicators beyond the results, so they can be used in the following training and competitions.

The Olympic Values

As youth become athletes in transition to senior, the Olympic Values and the socioemotional abilities development must be strengthened. It is essential for the athlete's career purpose comprehension.

The search for **excellence** at **Train and Compete** stage is related to the holistic point of view to the athletes' development, as an educational process of a human being who will train and compete to obtain medals, expecting to achieve the sport elite.

It is also important that youth may be inspired by more experienced athletes, who are already at **Compete and Win** and **Win and Inspire** stages. The surrounding people's support and the organization structure are fundamental to achieve the excellence pathway. Although, it is crucial to recognize that athletes are the main people responsible for guiding their own career. Thus, effort, dedication, discipline, trust in the process, courage to face the difficulties and an unfearful attitude to defeat new challenges are essential qualities that must be developed at this moment, which will be part of the whole sports career. It will make each competitive cycle a transformative period, to reach more and more expressive results and establish self-knowledge and comprehension attitudinal basis about the athlete's career purpose.

Every sport activity has a confrontation or a mutual opposition between the protagonists, though **respect** is also a dignified virtue of great competitors, complete athletes and a straightforward human being. So, the fair play competitive principles may be reinforced at this stage. Athletes may experience training processes that contribute to self-control development, promoting the respect principle, establishing their career based on the competitive ethics – coaches, psychologists and social workers may contribute to the process. It is also essential that athletes be educated to respect their own body, keeping themselves even more informed about personal care, being aware of the

losses from using forbidden substances and methods in sport, as well as respecting their coaches, the other coaching staff professionals and teammates.

Because of the increase in high-level competition opportunities, athletes are constantly surrounded by training mates, coaching staff and adversaries, many times in selections calls-up. It is the **friendship** that contributes to the demonstration of sportsmanship and fair play, in all circumstances.

Friendship and fraternity are considered the Olympic Movement core. The social coexistence in the sports environment may stimulate good relations, with respect and tolerance between the individuals involved in the sport practice, which foment the search for peace and recognize the equality between the people. These are the values that must be stimulated at the **Train and Compete** stage.

The junior-senior transition

Before moving forward to the management elements of the **Train and Compete** stage, it is necessary to pay attention to the transition characteristics between this stage and the establishment of a senior athlete, which may occur at **Compete and Win**. At this transition, it is common for athletes to conciliate the sport career with the academic life (double career). For example, it may coincide with the preparation moment for the entrance exam or the first years of University, which directly impacts the decision making process related to the sports career. Besides, it is a very sensitive moment of the athletes' self-perception: it is common that those who already have excellent marks and titles at junior, even being their sport ranking number one, when getting to senior they lose this central role, which may also interrupt their development in the Medal Pathway. Finally, it is a transition that demands more support to aspects related to the entrance in adult life and to higher performance levels. The fictional cases below illustrate some recurrent transitions of this sport career key moment:

CASE: ATHLETES IN JUNIOR-SENIOR TRANSITION

Maria, Flávia and Bruna are 19 years old and athletes of an individual sport, competing at junior. The three of them reached the podium at the last final of the Brazilian championship in the same event and all of them have an international curriculum, including the national selection calls-up.

Maria lives in a capital with her middle-class family, trains at a club with a lot of resources, interdisciplinary team, has a wage and studies at a private school. The athlete has excellent results when competing at her age group, but she cannot maintain them when she competes in senior. Her club's and the national squad's psychologist team are working on this issue with her.

Flávia lives in a shared accommodation offered by her club in a big city, coming from the countryside where she had her first sport experience at the local government team. She counts on a low but important financial help to contribute to her family incomes. She has the best time among the three of them and she is able to maintain and even improve her performance when competing with senior athletes, feeling very motivated. She had already competed in the Pan American Games and conquered a bronze medal. She is an excellent student and entered a University close to her city, where a relative of hers offered a job, paying four times the financial help she receives in sport.

Bruna trains at a University team and got a scholarship proposal to continue her graduation in another country; she lives with her widowed mother. She is a regular athlete who competes at junior and senior levels. She has gotten expressive results since U10, but in the last junior year, she had such a meaningful progress that the national team coaching staff considers her the athlete with the highest potential for the next Olympic cycle.

Maria has chosen not to go to the graduation and will dedicate herself exclusively to sport. Flávia did not go to college in the countryside, deciding to move to her boyfriend's house and to continue training at her club; she improved her earnings, but also the expenses, because of leaving the shared accommodation. Now, she balances her time with the household chores and the graduation by distance education. Bruna went abroad to train and study.

How may we know which one of the three athletes will continue in the Medal Pathway? Which one of them will be established as a senior and will become an elite athlete? What kind of support can a national federation offer in managing promising youth careers? How much may an athlete's personal decision influence all the institutional efforts? This stage coincides when turning senior and the transition to the competitions of this age group, being definitive or gradual, in which junior athletes train and associate with the senior team.

The senior high-performance sport is characterized by more intense competition seasons, stronger opponents, possible tactical-technical progressions, more publicity and financial incentives, compared to junior. This results in new training demands, lifestyle and relationships adjustments, including the necessity of more resting time, for example. Likewise, there are new psychological demands related to self-confidence and the accomplishment capacity because athletes have to deal with the fact that the best results in junior may be average in senior.

These multiple demands together create a highly challenging life situation for the athletes, related to the attention, time, energy to deal with it and being successful in an exigency superior level, learning how to balance sport, education, work and private life, renewing their supportive connections. Because of this big challenge, the sport career desistance rate is high: in Brazilian context, about 20-30% of athletes are successful at this transition, known as decisive and one of the most challenging to the athletes that continue on the Medal Pathway.

In the exemplified cases, we may also see the athlete Flávia's personal transition from a youth tutored by her club to an adult woman responsible for her own house and family. The balance between the attention and demands of professional and social sport activities is complex, what commonly takes promising athletes to give up, if there won't be concessions and adjustments in the organization of the time dedicated to sport and family.

THE MANAGEMENT

This stage represents an important milestone in the sport career and must be treated with dedication and attention by the national federations. The concern about the young athletes'

development is evident in all stages, but it is crucial at **Train and Compete**, considering that the athletes are learning how to deal with high-performance sport and the difficult decisions that will be with them along their journey.

The most important issue at this moment is the possibility of representing the country in national teams and the participation in international competitions. Thus, it is up to the national federations to guarantee conditions for an advantageous participation, to improve the sport performance and obtain promising results. It requires different strategic issues:

- Choosing the coaching staff: composition of a competent interdisciplinary team with an integrated work; call-up of professionals with an adequate profile to work at the stage; guarantee of good work conditions in the middle and long term, including either the training and competition periods or the youth observation ones, throughout the season.
- Establishment of training periods and places not only before the competitions, but also throughout the year, allowing a greater approach and alignment of the national team coaching staff work with the personal coaches. The places must be adequate to trainings and training ground moments, which can be fixed training centers or spread places throughout Brazil, facilitating the involvement of athletes from every part of the country. The challenge is the integration with academic responsibilities, which demands the guarantee of study periods in adequate places.
- Individualized performance goals: established according to a long-term planning, considering either the sport development or the whole career evolution.
- Regular communication with federations, clubs and other sport institutions to track and cooperate in working with youth sport development. It is important to expand the array of selected athletes throughout the seasons as to monitor the not selectable ones at the moment, but those with potential in a forthcoming future.

The national federations support, beyond the training environment, to athletes in abilities and competences evolution is also important, being directly related to a more stable sport development, contributing to the Medal Pathway. The International Olympic Committee proposes the improvement of some personal abilities that may help the athletes' life and in other contexts, like: (1) speaking with media; (2) being a good public speaker; (3) problem solving ability; (4) establishing smart goals; (5) developing a contact group efficiently, and (6) managing their finances.

At the **Train and Compete** stage, an important ability is to learn how to solve problems and establish smart goals. Clear and coherent goals facilitate the maintenance and establishment of youth in sport careers. Although, focusing on one or another ability will depend on the context. The strategies may be thought of for each department to answer its specific demands. Some of the strategies are: courses, presentations, specialized professional guidance like psychologists, informative material distribution etc. Mentoring programs are recommended, possibly including more experienced and prepared athletes (at Inspire and Reinvent Oneself) for this role.

- Expanding the dialogue with athletes to identify which are the biggest challenges faced at this stage.
- Promoting interaction moments between athletes from two age groups so seniors may share their experiences and information about life, the elite athletes' routine and the transition challenges. Training camps are good opportunities for this issue.
- Promoting the participation in senior competitions that focus on the challenges comprehension that will be faced and the preparation for their future at that stage.

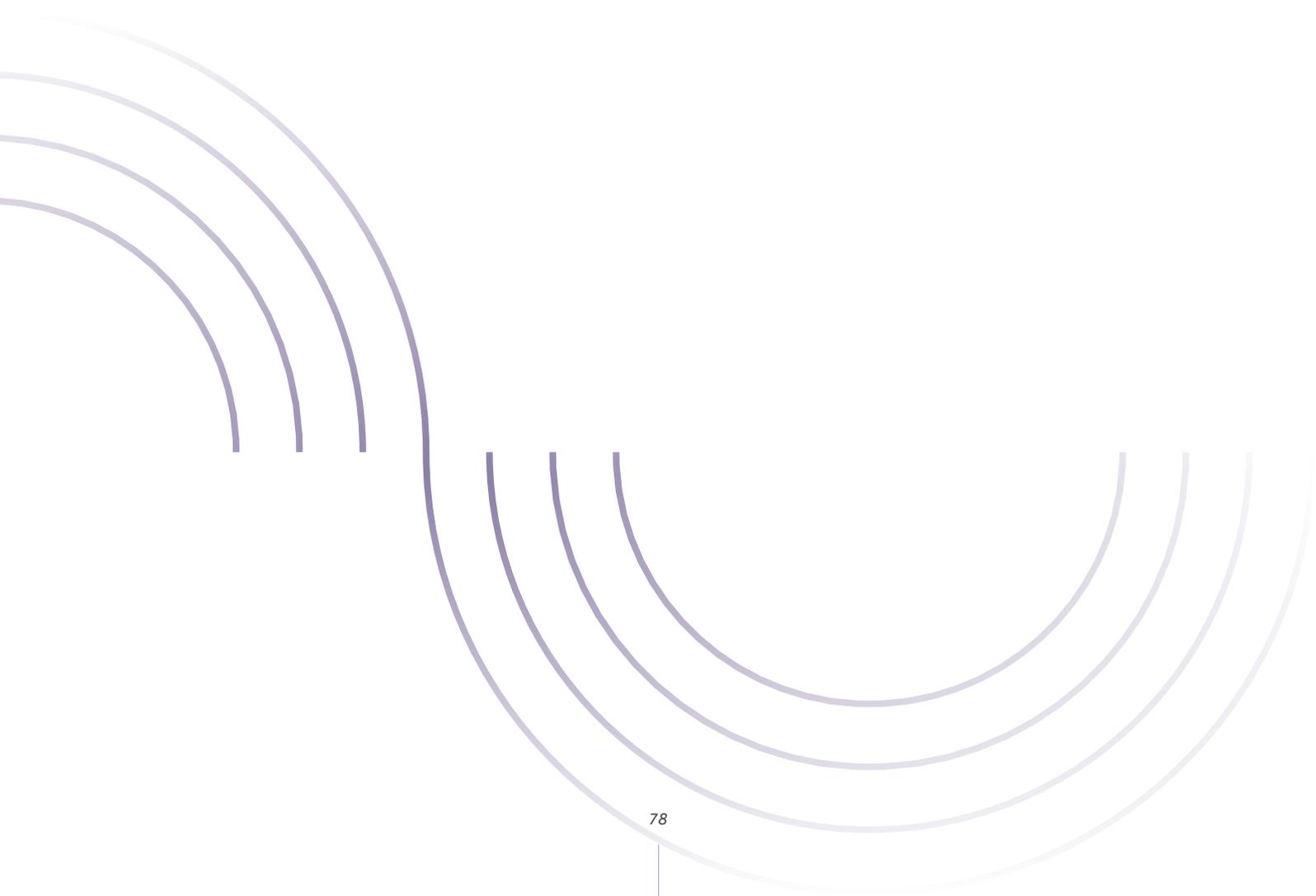
These aspects show the importance of the national federation's strategic planning at this stage. The guarantee and smart destination of financial, human and material resources, the technical and administrative adequate support, the specific projects and programs planning are determinant to the success in keeping athletes in sport career and in junior-senior transition.

Table 6 - Train and Compete stage synthesis

| TRAIN AND COMPETE | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERSON | | |
| APPROXIMATE AGE: FROM ABOUT +/- 14 TO +/- 23 YEARS OLD | | |
| <ul style="list-style-type: none"> • Growth and maturation at the first half of the stage may interfere in the competitive progression. • End of the biological maturation process and progressive athletic development. • External factors – like the sociocultural, political and economic environment – indirectly impact the sexual and intellectual maturity, interfering in the whole person's development. • Athletes are completely receptive and ready for new and more complex learnings. • Expressive increase in the sport development resulted from training. • Self-management, self-regulation and independence towards career directions. • Greater competitor behavior, necessary to the athlete's sports career. • Emotional self-control abilities development and stress management. • Compatibility with study and work, with the beginning of University life. • Young athletes assume new social roles and more responsibilities. • The family continues to be an essential support and security context. The affective relationships become more attractive and complex. • The coexistence with coaches and the interdisciplinary team increases and are determinant to the sport results progression. | | |
| SPORT | | |
| FREQUENCY | EXPERIENCES | COMPETITION |
| <ul style="list-style-type: none"> • 4 to 12 sessions a week. • 60 to 140 minutes per session. | <ul style="list-style-type: none"> • Expressive increase in training and competition loads, including the recovery and prevention activities. • Promoting a gradual evolution from pre-junior athletes to junior, related to the training demands and performance expectations. • Sport performance refinement and search for consistency. • coaches' role decentralization, starting to associate with an interdisciplinary support team. | <ul style="list-style-type: none"> • Competition becomes more important. • The search for better classifications and indexed achievement guarantees a gradual progress in the competitive level. • National and International competitive experiences increase (national team). |

MANAGEMENT

| ACTIONS | INDICATORS |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Institutions and practice places mapping. • Promoting adequate competitions. • Professional board development (coaches and officials) with specific qualifications to work with young athletes in evolution. • Athletes monitoring – selectable and not selectable. • Anti-doping educational initiatives for athletes and professionals. • Interaction with senior athletes and coaching staff, facilitating the comprehension of the elite athletes' routine. | <ul style="list-style-type: none"> • Number and scope of sport institutions. • Number and scope of the specific sport practices places. • Number of federated athletes by gender in the sport. • Number of national and international competitions. • Athletes list taking part in the national and international competitions. • National and international conquest ranking. • coaches and officials number and qualification to the specific work at this stage competitions. |



2.5

COMPETE AND WIN

This stage affirms the Medal Pathway, with athletes becoming senior and establishing their sport career. It is a moment that the results impulse the youth to a high-performance competitive level, aiming to achieve the sport elite. This stage continues until a complete cycle, training and competing with the sport's elite athletes or teams, in which the youth experience full seasons as a senior athlete for the first time. There is a progress in the national, qualifying and international demands routine. Some athletes achieve the Olympic or world level even in the first cycle, while others may need more cycles to reach the main competitions.

Added to the **Compete and Win** objectives, there are several behavior factors that are modified, implying a lifestyle change, directly impacting the athlete's personal and professional life.

CASE: COMPETE AND WIN

Carla's resilience and her team's structure made her reach the high-level performance at 25. She had already graduated and matured, which contributed a lot to her athlete's life complexity understanding and kept her strong in the training routine, making her a dedicated and an exemplary athlete. According to her coaching staff, this was the reason for her sustainable sports career. At 29, with a few years of experience in the national team, she conquered the dreamt golden medal in the Olympic Games. Carla also became an international reference because of the maintenance of the excellent results, conquering the world championship, aiming another Olympic podium the following years.

Marina completed her first senior season at 21 years old. She became the best Brazilian athlete in the first Olympic cycle. She got few injuries throughout her career and could compete in the international elite for 14 years. She paused the competitions along her pregnancy and in the first months of taking care of her baby, though she could go back to the training routine efficiently. This was possible mainly because of the club coaching staff's careful planning, integrated into the national team committee, who took care of the training adaptation periods and maternal needs. She could also count on her husband and mother's support, who lived close to Marina after becoming a widow.

Henrique has not rested on his laurels from participating in the Olympic finals. He was in the beginning of one more season, aiming for the Olympic medal conquest at the next Games. The foreign training season was essential for keeping his performance in ascension. Despite being accustomed to the high-level competitions, he could not reach the expected result on his second Olympic Games participation. It was very hard to keep strong, facing the frustration feeling and being criticized all the time. Thus, he arrived at that Games edition with a slight external mistrust, but very self-confident and supported by his coaching staff. So much so that, at the interview after winning the gold medal, he insisted on thanking all the support he received and also himself for being focused on his plan, even though it has been a little postponed.

Elias arrived at senior as a promise. His historical reports were very impressive, so the coaching staff built a very consistent plan for the season. Because of his commitment to the training and the continuity of participating in different competitions, the promise was fulfilled. After one year without great results, the following season was remarked by his first call up to the senior national team. He had a fair objective to conquer an Olympic medal and decided to take a leave of absence at college until the year after the Olympic Games, postponing another dream: to be the first graduated person in his family. He is used to visiting his parents every two or three months, considering he was 800 kilometers away from them. He went through an Olympic cycle as a bench player in the national team. In the second cycle, he had an effective participation in the squad results, becoming one of the country's main elite athletes.

At this stage, because of the stimulation and experiences buildup throughout the sport career, it is expected that athletes be able to:

- Self-manage their athlete career, aligning with social demands (health, performance, education).
- Adequate their habits and routines to become an excellent athlete.
- Associate with departments that support their career, like the team, coaching staff, club, sponsors, investors and political, economic and social institutions support.
- Establish in the national and international competitive level, maintaining or getting closer to the world elite.
- Inspire and be a knowledge source for other athletes from other career process stages.
- Manifest competences and abilities to deal with extent training processes and excellence results achievement.

THE PERSON

At the **Compete and Win** stage, athletes start to prepare themselves for the best performance and result. They continue in their personal and professional growth with more engagement in their career decisions. They need to keep taking care of their body, the training processes and aspects related to nutrition, sleep, recovery, prevention, emotional and social wellness, as well as cultural and intellectual development.

There are not great changes in their **physical development**, though the functional and athletic evolution from the training process are highlighted.

The **psychological development** aspects, associated with the performance acquisitions, are extremely important for the athlete to progressively achieve the sport elite. When becoming senior, it is expected that essential elements of the athlete's identity in the Medal Pathway may be established. These aspects must be strengthened with psychological preparation programs and the building of short, middle and long-term projects for the sport career, which highlight the athletes' engagement in decision-making processes and their own career management.

At this stage, the life abilities development focus, proposed by IOC, may be in their contacts group expansion and in the way they manage their finances, once they can contribute to the success of their own career management. The solving problems abilities and the smart goals establishment keep their relevance, so athletes must continue being supported in their development. The focus on their abilities aims to facilitate the planning and the actions implementation, at each stage, so the athletes' activities organization will not be overloaded, considering that there is a progressive quantity increase. According to **social development**, the main challenge is the adaptation of the athletes' career changes, demands and responsibilities, implying less association with environments outside sport and a set of routine, habits and behavior adjustments, related to health and performance optimization.

Some other social demands related to the athletes' personal life may occur simultaneously to their career, like the studies continuity or another profession development. The athletes who have some of these demands strengthen their resilience, but they must always search for a balance.

The relationship with the family also changes, since athletes begin to build their own families, with an increase in the responsibilities. It is recommended that they continue to be supported so they may manage all of these social and sport demands, including another possible job (double career), aspects that are part of the athletes' life and must not be ignored.

The sport environment must continue to be safe and propitious to healthy relationships, contributing to the athletes' mental health and wellness. A positive and healthy relationship with the **coaches and peers** becomes crucial, considering that the athletes will spend a great part of the days in their company, for many years. It is important that their coaches consider the athletes as integral beings, showing comprehension and support, contributing to the athletes' ability of managing their lives in a balanced way. If the athletes find themselves in a position to choose between their family and career continuity, it may reduce their wellness and performance, for example.

GIRLS AND WOMEN: HIGH-PERFORMANCE ATHLETES IN BRAZIL

Despite the several social challenges faced by women to practice sport throughout history, the number of participation practitioners and high-performance athletes has increased in recent years. In Tokyo, women athletes represented 47% of the Brazilian delegation at the Olympic Games, a conquest promoted by cultural changes in society and equity actions accomplished by several sport organizations, like the inclusion of events for women in sports that used to be exclusive for men. It is important to highlight that the number of mixed events had doubled from Rio 2016 to Tokyo 2020 Olympic Games, reaching 18 in total.

Among the accomplished actions of the national federations that promoted a bigger participation and athletes' development on the Medal Pathway, there are: a higher number of competitions and the establishment of competitive calendars for the younger and senior ages; a greater sport conquests visibility and divulgation; and the creation of specific departments for the women's sport.

However, even with all of these progresses, it is important to remember that the women athletes still face challenges regarding their incomes, visibility and work conditions. The prejudice related to individual aspects, like motherhood and sexual orientation, may also difficult the athletes' maintenance in sport. So, if we first dedicated our efforts to increase the participation of women in high-performance sport, nowadays we reinforce the need for actions to promote sport environments with a greater gender equity in all stages, with a bigger support to the athletes personal and professional development. Does your national federation have any programs to improve the high-performance sport practice conditions for women athletes?

Brazil Olympic Committee created the Women Coordination in Sport, in 2021, as more and more committed to gender equity, an area exclusively dedicated to producing athletes, coaches and managers actions, advised by the Women Commission in Sport, established in 2022. You can learn more about these initiatives by double clicking the buttons below:



THE SPORT

The training

The main factor of the athletes' development at **Compete and Win** stage is the training and it must be adjusted to the personal life's demands, which requests a regular monitoring of the physical, physiological, psychological and socioemotional aspects.

At the **Compete and Win** stage, the training process requires a severe dedication once the training loads are extensively increased. Besides, the athletes go through intensifying periods and long

learning and specialization processes within the sport, which requires a lot of focus, discipline and commitment.

So, the training loads and daily recovery control, also the evaluation of performance, nutritional condition, hydration level, sleep quality and emotional aspects must be included in the monitoring routine adopted by the coaching staff.

The training monitoring is fundamental to know if the athletes are adapting to the training program, understanding the individual responses to the training/recovery and minimizing the risk of excessive or insufficient training, injuries, stress and diseases. There are two types of monitoring to be done:

- i. **Periodical evaluation:** anthropometric measurements to check the body composition and physical tests to a health clinical or the athlete's sport way evaluation, in some determined periods of the season, among others.
- ii. **Training monitoring:** it may be daily or weekly, with a more accurate control of the acute answers to training as objective, enabling an athlete adaptation condition greater control, allowing the coaching and interdisciplinary staff some necessary planning adjustments of the short-term training. There are two ways of controlling the training loads: the psychobiological, regarding physiological and psychological demands imposed by the training and competition; and the prescribed load magnitude control, related to the quantitative measurements, objectively evaluated about the athletes' demands in prescribed training and in the competition requests.

The idea to work with information from the monitoring data is related to the possibility of visualizing the training program effects by the coaching and interdisciplinary staff, so they may adequate it the best possible way. Therefore, it is recommended to use graphs and figures representing the results to facilitate the athletes' development understanding.

It is also necessary that the athletes be aware of their training, load control and recovery monitoring importance, besides being taught about how to follow their development from these controls.

FOR MORE INFORMATION

If you are interested in more information about monitoring and training load control, we recommend the following scientific studies: BOURDON et al. (2017); THORPE et al. (2017); FOSTER et al. (2017).

The following table highlights some training monitoring methods, elaborated from the "For More Information" references, that may be included in the high-performance athlete's routine, in periodical evaluation or daily/weekly monitoring.

Table 7 - Load control measurement

| METHOD | COST | USAGE FACILITY | RELIABILITY | OBSERVED VARIABLES |
|----------------------------------------------------------------------------------|---------------|----------------|---------------|------------------------------------------------------------------------------------------------|
| Psychobiological measurements | | | | |
| Subjective Effort Perception | Low | High | Moderate-High | Arbitrary Units (U.A) |
| Subjective Recovery Perception | Low | High | Moderate-High | Arbitrary Units (U.A) |
| Other Subjective Perception Scales (e.g.: pain, humor, hydration, sleep quality) | Low | High | Moderate | Arbitrary Units (U.A) |
| TRIMP | Low-Moderate | High | Moderate-High | Arbitrary Units (U.A) |
| Wellness Questionnaires | Low | Moderate | Moderate-High | Evaluation, Scale, Checklist, U.A. |
| Psychometric Questionnaires (e.g.: POMS, RestQ-Sport) | Low-Moderate | Moderate-High | Moderate-High | Evaluation, Scale, Checklist, U.A. |
| Cardiac Frequency Index | Low-Moderate | Moderate-High | Moderate-High | Cardiac frequency (FC), time in intensity zones, variability and FC recovery measurements etc. |
| Oxygen Consumption | High | Low | High | VO ₂ , oxygen consumption metabolic equivalence |
| Blood Lactate | Moderate | Low | High | Concentration |
| Biochemistry Evaluation/ Hematologic | Moderate-High | Low | Moderate-High | Concentration, volume |
| Prescribed Magnitude Measurements | | | | |
| Time | Low | High | High | Units of time (s, min, h, d, weeks, year) |
| Training Frequency | Low | High | High | Number of sessions |
| Distance | Low | High | High | Unit of distance (m, km) |
| Quantity of Repetitive Movements | Low | Moderate-High | Moderate-High | Activity counting (steps, jumps, throwing, specific technical movements) |
| Way of Training | Low | High | High | Exercise load, volume, density |

| METHOD | COST | USAGE FACILITY | RELIABILITY | OBSERVED VARIABLES |
|-----------------------------------|---------------|----------------|---------------|--------------------------------------------------------------------------|
| Power | Moderate-High | Low-Moderate | High | Relative (W/kg) and absolute (W) |
| Speed | Low-Moderate | Moderate-High | High | Unit of measurement (m/s, km/h, m/min) |
| Acceleration | Low-Moderate | Low | High | Units of measurement (m/s*s) |
| Functional Neuromuscular tests | Low-Moderate | Moderate | High | Countermovement jumps measurement, squat and drop |
| Reason of the Acute Load: Chronic | Low-Moderate | Moderate | Moderate-High | Acute load measurement (session, sessions) to chronic load (week, month) |
| Measurement by GPS | Moderate-High | Moderate | Moderate | Speed, distance, acceleration, time in speed zone, localization |
| Metabolic Power | Moderate | Low-Moderate | Moderate | Equivalent energy |
| Automated Video Analysis | High | Low | Moderate | Speed, localization, acceleration, technical/tactical variable |
| Non-Automated Video Analysis | Moderate-High | Low | Moderate | Speed, localization, acceleration, technical/tactical variable |
| Accelerometric | Moderate | Low-Moderate | Moderate | Power g x-y-z |
| Musculoskeletal Load | Moderate | Moderate | Moderate | Simple variable calculated by power g x-y-z in U.A. |

Sources: Bourdon et al. (2017); Thorpe et al. (2017); Foster et al. (2017).

These control and monitoring parameters may be used in decision-making processes related to the training load adjustments and methods and recovery strategies. It may always aim for the athlete's great organism and mental health adaptation facing the training demands and personal life balance.

An effective monitoring of all athlete's dimensions enables a better control of injury risks and psychological symptoms associated with the training process.

The other professionals become even more involved in daily life, contributing to a better results achievement, like physical trainers, nutritionists, physiotherapists, physiologists, psychologists, social workers and mentors. They may help the athlete's development, searching for a healthy performance improvement, diminishing the injury risks and psychological stresses resulting from excessive training and the pressure for expressive results. Besides, the health clinical status periodical evaluation may be monitored by a medical team (biochemistry exams, physical tests and physiological and functional status).

These stage's high demands strengthen the importance of educational and anti-doping procedures, like the awareness of the consequences in violating anti-doping rules, either for the athletes or for their supportive team, as well as some training and competition restrictions.

The Competition

Competition is a rising factor at this stage, demanding the participation in international events, traveling periods, living in training centers or hotels abroad and far from their social circle, in some cases. So it is essential to provide a specialized support for the necessary socioemotional assistance, that encourages the coexistence within the team and coaching staff, helps to bear their friends and family absence and distance and offers resources for the best athletes' athletic potential development, even in training or in competitions.

Reaching performance and competition at high levels brings international career planning perspectives. The Olympic cycles are well defined regarding events, enabling participation predictions in qualifying, defining preparation strategies to the South American, Pan American, World and Olympic Games.

When reaching this stage, athletes have already overcome several challenges, conquering their main role in the practiced sport. At this level, it is expected that they have all conditions to keep committed to the search of even more expressive results, with the necessary support to dedicate to sport.

The sport practice is expanded to the other supportive areas, which requires a knowledge interchange about the several subjects involved in the training and of international level range, including more information about the anti-doping rules.

The training process establishment demands dedication and commitment to some factors beyond the training, like nutrition, recovery, prevention, mental training etc. The specialized technical support is fundamental to a good performance at the **Compete and Win** stage.

THINK ABOUT IT AND MAKE A NOTE

The athletes are experiencing, for the first time, the highest-level competitions at **Compete and Win** stage, including the international ones. New trips and interactions with media and social networks tend to generate unprecedented demands, or even divide the attention of inexperienced athletes. Better sponsorships, wages and incentive pays can drive athletes to access new goods or better life conditions.

Can athletes of international level keep focused in training while taking part in weekly social events and consuming non-appropriate food for their physical potential development? Does giving up recovery and rest provide good practices in the search of sport excellency? Which other questions may be asked and discussed with athletes to diminish these effects? It is important that your national federation collects the main reasons for less focus on training and competitions, also about the necessary support it may offer – like career and goals planning, including the way to reach them. It is essential to think about each athlete's specific needs, as general programs have less effect at this level.

The Olympic Values

The search for **excellence** is a necessary principle for the athletes who intend to engage themselves in elite sport. The daily care with their body and performance as well as the capacity of connecting to the training science are essential issues, so the planning may be continuously adapted, optimizing the preparation time, potentializing the expected performance within this initial period of high-level competition. Excellency surpasses the athletes' results in competitions; it is a value cultivated in several competitor behaviors and attitudes, like autonomy, resilience, engagement and creativity. Values that must be developed throughout the whole athlete's career.

Respecting their own body may be a basic care that athletes must be educated to follow at the **Compete and Win** stage. At this moment of training loads and results expectations intensification, it is essential to balance the training efforts with the recovery demands and other processes like feeding, sleep, social life and leisure in the athletes' career/life.

There must also be a mutual respect between the athlete and the professional team in their closer relationship environment, people from the team/club/national squad that contribute to the educational process in being more and more a complete professional athlete. Respecting this career is a milestone and it interferes in the athletes' other social contexts besides the sport one.

It is indispensable that athletes spend more time training with their team to **Compete and Win**. Whether in individual or team sports, athletes will always be surrounded by training mates and the coaching staff, periodical meeting adversaries in competitions, even spending some time together in call-ups to national teams. Therefore, the sport training environment must provide connections and **friendship** among them, including the opponents. All in all, sport starts occupying a great part of the athlete's life, so all the contexts where there is sport practice must be thought either as a sport training environment or as living together and life learnings.

THE MANAGEMENT

The athletes must have conditions to totally dedicate themselves to the training and competitions, including the financial support for their routine expenses, at this sport performance level. The national federations may implement incentive pay programs, support the selection of athletes to be benefited in another institution's financial incentive programs and even search for solutions along with the clubs, regarding hiring and the athletes' work professionalization.

The national federations may offer training centers in partnerships or with their own resources, regarding facilities, with all the necessary infrastructure – including training sessions, multidisciplinary assistance, rest and recovery –, as well as reference places to be used in training ground, monitoring and evaluation moments. It is essential to access high-performance specialized equipment.

It is indispensable to save resources for the participation in high-level international competitions when searching for better results and qualifying for continental, Olympic and world competitions. Thus, there must be communication and alignment between the national federations and clubs, to respect and manage the competitive calendars, guaranteeing a qualified participation in target competitions, without affecting the athlete's performance at the club.

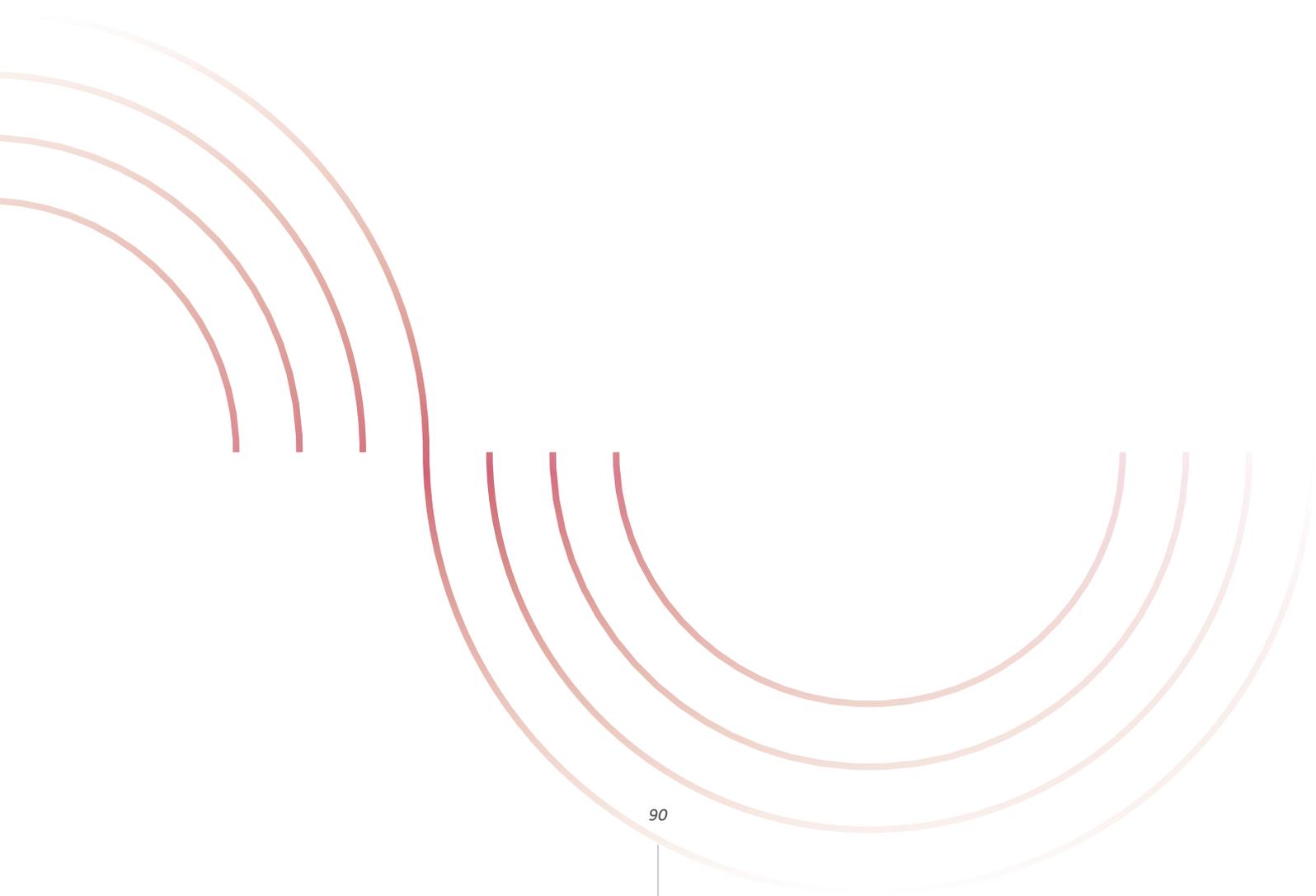
It is a decisive moment to use the data collected throughout the different athletes' journey to produce knowledge for better results within the current and future athletes' generation, as well as impact the sport science development and spreading.

Table 8 - Compete and Win stage synthesis

| COMPETE AND WIN | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERSON | | |
| APPROXIMATE AGE: FROM ABOUT +/- 18 TO +/- 25 YEARS OLD | | |
| <ul style="list-style-type: none"> • Athletic development increases. • . Regular care with the body and aspects related to health and performance. • . Personal and professional growth, greater engagement in decisions about their career. • . Strengthening of the athlete and competitor identity aspects. • . Adaptation to the high-performance athlete's career changings, demands and responsibilities. • . Double career compatibility (academic or vocational) and balance between professional, vocational and social life. • . Healthy and positive relationship with the coaches and teammates. • . Interdisciplinary teams are more frequent in training and competitions. | | |
| SPORT | | |
| FREQUENCY | EXPERIENCES | COMPETITION |
| <ul style="list-style-type: none"> • 5 to 12 sessions a week. • 60 to 160 minutes per session. | <ul style="list-style-type: none"> • Extensive increase in training loads. • Individualized load training. • Systematized monitoring (sleep, nutrition, hydration, emotional status etc.) by the interdisciplinary team. • Greater participation of the interdisciplinary team in daily routine. | <ul style="list-style-type: none"> • Competition is the main rising factor. • Increase in the international level events participation, traveling periods, living in training centers or hotels and even abroad. • The preparation is focused on the great events, like the South American, Pan American, World and Olympic Games. |

MANAGEMENT

| ACTIONS | INDICATORS |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none">• Bigger support (equipment, financial, logistics, HR, infrastructure etc.) so athletes may be totally dedicated to sport and take part in international competitions.• Sport performance monitoring of the high-performance athletes.• Support to the incentive pay and sponsorship programs access. | <ul style="list-style-type: none">• Number and structure of the specific sport practice places.• Number of sport federated athletes (men and women).• Number of national competitions and participant athletes list.• Number of international competitions – continental, Olympic and world – and participant athletes list.• National and international conquest ranking.• coaches number and qualification to the specific work at this stage competitions. |



2.6

WIN AND INSPIRE

This stage is about the experienced athletes' routine in searching for the highest sport performance and their results maintenance/improvement. From this moment on, the athletes have their own journey as an advantage and are able to use their previous cycles experience to improve their performance and make their career longer, in a balanced way.

CASE: WIN AND INSPIRE

Caio was sobbing. How thrilling! Such happiness! He couldn't sleep that night and put down roots on the sofa while waiting for the Olympic Games opening ceremony. He knew he had to watch the first part of it again because his anxiety disturbed his attention to the show. After a long while, there were they: Carla, his sister, and Henrique, his best friend, as the Brazilian team flag bearers.

Carla was feeling on top of the world! She was experiencing a unique moment, one of the best acknowledgements an athlete could have. While being there, she remembered the previous editions of the Games that she watched on TV and how those athletes' images enchanted her imagination. Carla noted that she would be an inspiration for many children and youth, at that moment. She felt that her result and attitude at the greatest world competition could be the differential for girls and boys getting involved in sport.

Henrique couldn't stop crying. Wow! So proud of himself! He knew he was being seen by Caio and his family, who financially helped a lot with the agreements he signed the last years. At the end of the opening ceremony, he was in his bedroom writing about that moment. He got very happy with his notes and, after saving it, he diverted his energy and focused on the competition that would be two days ahead.

Being outside of this Games edition, Elias supported his mates from afar. He used that moment to make a self-reflection about his sports career, thus realizing an old dream he decided to fulfill: to become a coach in the future. He spent one of his visits to his hometown to share this dream with the family and, from that moment on, he started planning his career transition. Every time he visits his family, something big happens. At that time, the mayoress paid tribute to him for his conquest at the last world championship. The city entrepreneurs committed themselves to building a sports center, thus enabling the future youth to train at a high level and develop in their city. These acknowledgement and higher visibility moments made him think about being really prepared to quit his high-performance competitor career. Before traveling to Europe to return to his training, Elias had already booked to record an advertisement for his sponsor, besides his team's institutional video that will be used at the enterprise that supports the project, aiming to motivate the employees in searching for support at their work. On his last week in Brazil, Elias took part in the Level I Coaches Certification, from his national federation, an opportunity that would help his decision making process, two years later, when starting his transition to the sport post-career.

The objectives of this stage are:

- Establishment as engaged high-performance athletes, keeping themselves in the world sport elite.
- Develop a mindset to achieve better results (indexes, podiums and records).
- Reinforce the care with health, self-knowledge and knowledge about the high-level performance training processes.
- Extend the career and life quality.
- Contribute to the less experienced athletes' development.
- Establishment of a career plan from the achieved goals and results at the previous stage.
- Plan the sports career closing and the post-career.

THE PERSON

Arriving at this stage means that the person is very motivated to continue in the sports environment, willing to improve on the Medal Pathway. An adequate training is the contribution to keeping the person at this level and to healthy extend the career. The sport excellence is developed from socioemotional competences, specialized abilities within the sport and sport techniques acquired throughout the years.

The **physical development** continues to evolve, considering the athletes' knowledge about their own body: the needs for intensity and rest and which stimuli result in better answers. Their history must be used in their favor and it is expected that the athletes may be even more involved in the training plan. Some technical adjustments or related to muscle balance may be necessary to the sport's evolution or because of injuries historical, thus being taken into account. The care with health and body continues to be essential, in processes more and more individualized.

The **psychological development** may contribute to the athletes' continuity of searching for better results, medal and titles conquests, not only competing among the best. Keeping themselves on different editions of elite events reveals exceptional athletes, including their resilience and accomplishment desire. The training and competition concentration and relaxing strategies may be intensified, with individual routines. At the end of the career, uncertainties about the quitting moment and a supposed physical performance loss may generate emotional instability, which demands an important psychological professional support.

These uncertainties influence **social development**: worries about the professional life after sport are intensified throughout the **Win and Inspire** stage, which is recommended to planning the career closing and financial management. Supportive programs at this transition may contribute to a full

competitive career ending. In **Section 2 – Women and Men Coaches Development**, this transition is considered from the interest in working as a coach in post-career.

At this stage, athletes are established at sport elite, becoming a reference beyond the sport context, with an important social role about strengthening their sport and inspiring new practitioners of all levels, including children and adolescents of the future athletes' generation. Being aware of this social role and acknowledged by their national federation may be crucial for the athletes' accomplishment feeling.

The **family** continues to have a supportive role, but also regarding the retiring approach; programs that encourage the career end transition can contribute to this aspect too. The **other athletes** continue as journey partners, which are supposed to associate better to each other, either in harmonious moments or in solving problems about the team's relationship. The younger athletes' reference role may be assumed and valued. Finally, the coaches and athletes approximate their sport experience related to the years dedicated to sport, which may facilitate a horizontal relationship and the decision exchanging about training and competitions.

Athletes in adult age continue their development process, so stimulating the self-knowledge, values and socioemotional abilities development is still important at this stage. We highlight the importance of interdisciplinary work in searching for healthy training and competition environments.

These processes may be strengthened by the managers, coaching staffs and athletes' engagement, working to achieve the objectives. It is essential to reinforce the abilities of speaking with the media and being a good public speaker, considering the athletes exposure at this stage. The establishment of these abilities set will also contribute to a more fluid transition to the next stage.

The finances management, for example, may contribute to the **Inspire and Reinvent Oneself**, so its improvement activities can be positive.

Regarding **social** aspects, taking care of the family demands and others related to the **double career** continues to be important. When starting the post-career planning, it is possible that athletes enter graduation or professionalizing courses, a new demand to be adjusted to their life. The peer relationships may also be taken care of. The competition with teammates and adversaries needs to be respectful and healthy, not only because of being considered a model to the general society, but also for contributing to the athletes' mental health. Coaches must continue considering athletes as integral human beings, working towards a positive relationship and their constitution as an attitude example, stimulating the respect to the Olympic Values.

FOR MORE INFORMATION

The International Olympic Committee offers an athletes' career program, as COB provides the PCA (Athletes Career Program) to create conditions and tools for the athletes planning and preparation, from the beginning until the transition stage to the labor market.

For more information about PCA and the described abilities of COI's program, double click on buttons below:



THE SPORT

The training

At the **Win and Inspire** stage, the previous training and the high-performance competitions in several levels the athletes had been through, specially the international ones, may result in experience and a greater capacity of dealing with the training and competition routines.

Maturity and self-knowledge may contribute to the planning and performance manifestation in a more balanced way. On each new season, the previous one "must be carried": athletes are more experienced, with a greater self-knowledge, thus leading to their best performance and results. The coaches and coaching staff must consider the athlete's perception even more when controlling injury risk situations or recovery lack, thus changing the training demands, upgrading the training's quality, if feeling physical and mentally well, aware that their body can bear more training load.

It is fundamental to study and plan the competitive calendar when planning the season. According to the quantity of target-competitions, it is necessary to implement different kinds of planning, training and moments in which the best performance may be expressed.

The training plan systematizes the process in a way that all athletes may have their performance built in a progressive way throughout the season, presenting the expected performance in each one of the competitive levels, from evaluation events to competitions and target championships. It is necessary to be connected to the athletes' club to understand their demands, training ways and methods in which the athlete is involved in day by day.

The training activities then are programmed from the calendar, the individualities and the athlete's historical (now experienced at the high-performance routine) and the coaches' chosen methodology.

These structural patterns demand dynamics with the adequate training and recovery work, always searching for organic adaptations to promote the best in physical, technical and tactical forms, besides the development and achievement of high results.

The end of this stage brings the detraining process with the beginning of the post-career transition, characterized by the quantity and training load gradual reduction. The continuity of this process will be discussed at the **Inspire and Reinvent Oneself** stage.

GIRLS AND WOMEN: YOUTH ATHLETES REFERENCES

The lack of women as references for young practitioners contributes to the perception that sport is not an adequate place for girls, resulting in a higher abandonment of the sport practice, reinforcing the lack of interest in sport. The elite athletes are important references for the beginners. These athletes' success inspires new practitioners who consider a possible professional career in sport.

We recommend that the national federations publish, promote and make the elite athletes visible, expanding and strengthening the social changes, thus inspiring the new generations. Events that gather experienced athletes and young practitioners from different regions of the country and social classes together, enabling their contact and the sharing of experiences, is also an interesting action to engage girls and women in sports. These actions foster the empowerment of children and adolescents, as making possible an identification with different professional journeys within sport.

The program "One Win Leads to Another", a partnership between UN and IOC, is a good example that provides the successful athletes visibility throughout the country, stimulating a greater participation of girls and women in sport. One of the program's objectives is to publish the black athletes' conquests and journeys in sport, inspiring children and adolescents to start practicing sport, foreseeing a possible career as professional athletes. For more information, double click on button below:



The Competition

At the **Win and Inspire** stage, the athletes focus their preparation on the main competitions, like the Olympic Games. The training pluriannual plan is subdivided in preparation cycles for the most important international competitions of the sport.

The athlete becomes more and more experienced on each training and competition cycle, adjusting the competitive calendar to the training stages, according to the athlete's sport way, as well as planning competition strategies and identifying the main adversaries to be defeated.

Performance oscillation periods are common as this stage may last many years, mainly when there are training strategies adjustments, age group or event changes. Therefore, it is important to know these changing moments and training readaptation, considering the athletes' health and performance, so they may continue competing always at a high level. The relationship between athletes and their coaching staff is essential to draw the best competitive planning strategies.

It is necessary to understand the calendar and the participation criteria of each event, including the target competitions qualifying, for example. Then, it must be analyzed if: it is needed to take part in national events; they are classificatory to the international ones; a continental event (South American or Pan American) qualifies for greater events (World and Olympic Games). It is also necessary to consider the clubs calendar and dialogue in case of priorities adjustments.

There are also evaluation competitions, important to check the physical, tactical and technical conditions that guide the training pathway. They are indicators of maintenance or even modifications in the training plan to improve or correct the found deficiencies. It is worth to repeat: getting acquainted with the club's existent evaluations may optimize the work to be done, and also save training days close to the competitions, generally rare in call-ups to the national teams.

Finally, studying the performance after the competitive event is crucial, evaluating with the athlete what was done in the best way and must be repeated in the following training or call-up, as well as what needs to be modified or implemented.

Another athlete's role at the **Win and Inspire** stage is the meaningful contribution to the younger and inexperienced athletes, which may result in a double role of technical leader and teammate.

The doping control becomes part of the athletes' routine who keep expressive results on the international context and are part of the ABCD Registered Testing Pool or of their International Federation. Testing may occur in or outside competitions, so the WADA (Whereabouts) Antidoping Management System (ADAMS) is fundamental to avoiding notifications and violations of the antidoping rules.

There are two athlete's career moments that must be underlined at this stage: when they reach their competitive peak in searching for medals, records and titles; and when their performance naturally declines, getting closer to the end of their career. Both of them must be well guided, either to take advantage of the best athletic performance when the athlete is on the top, or to contribute to the post-career transition in a healthy and planned way.

The Olympic Values

The athletes who follow the Medal Pathway are characterized by a set of physical, technical, psychological qualities and by the socioemotional competences' development. We want them to **win and inspire** new generations of athletes and all the ones who support and follow them.

Achieving **excellence** demands athletes to be aware of all their training process.

An active role in their sport surpasses conquering medals and titles: it is managing their own life and career. Thus, they may develop responsibility and autonomy, applying their experience to work with the interdisciplinary team. Resilience is another essential factor to achieve excellence, including a persevering attitude to face the training and competition routines with dedication, commitment and a continual overcoming of their own limits. Autonomy, critical thinking and creativity may be differentials to help in training plans and competition strategies.

Respect is related to attitudes about human integrity, at this stage. It is essential that the athletes be aware of their social responsibility, considering their behavior and their actions consequences. It includes the respect to themselves, to their teammates, the coaching staff, the referees, sponsors, fans and boosters in general.

At the **Win and Inspire** stage, the athlete may also support some sport or not causes, such as a sport practice incentive, environment, gender identity, fighting prejudice and any way of discrimination, besides strengthening positive attitudes that show respect to others and connection with people.

It is important that the athlete understands that cooperation expands the possibilities of success in the sport career, as nobody wins and inspires by himself or herself. So **friendship** continues to be an essential principle at this moment of the career, and the athletes may search for meaningful dialogues with their interdisciplinary team, taking part of the athletes' new generations approaching and belonging. It is part of this level to deal with several sociocultural characteristics of the people, guide the process to build harmony among the work group and inspire the people to develop their whole human and athletic potential.

So, it is essential to recognize their own and the others' feelings to deal with it, leading the sports environment which they are part of, spreading sympathy and positive feedback.

THE MANAGEMENT

The **Win and Inspire** stage underlines the opportunity to use the athletes' life history to inspire the whole Sport Development process, added to the worries of the previous stage. These histories may influence, in a positive way, thousands of youth who are engaged in the long-term sport development process, from their childhood to the whole sport ecosystem. Besides, it may contribute to the senior athletes' development while demanding and improving competences related to communication, empathy, pedagogy, self-confidence, among others. Then, the national federations can develop programs involving athletes as a reference to the young ones, even as the sport image in an institutional brand communication and strengthening strategy.

Table 9 - Win and Inspire stage synthesis

| WIN AND INSPIRE | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERSON | | |
| APPROXIMATE AGE: FROM ABOUT +/- 20 TO +/- 40 YEARS OLD | | |
| <ul style="list-style-type: none"> • The physical development reaches the performance peak with the training. • The care of the body becomes part of the daily routine. • Care with the athletic training, considering the injuries background. • Improve the concentration, relaxing and competitive mindset strategies. • Continuous development of self-knowledge and socioemotional abilities. • Conciliate career with the family and other social surroundings. • Search for human, social and cultural development. • Play a reference and inspiration role in the sport context and in the society. | | |
| SPORT | | |
| FREQUENCY | EXPERIENCES | COMPETITION |
| <ul style="list-style-type: none"> • 5 to 14 sessions a week. • 60 to 180 minutes per session. | <ul style="list-style-type: none"> • The training must focus the athlete on search for strengthening the performance and results. • coaches must consider the athlete's perception even more, in training and planning the competition strategies. • Transition and detraining programs at the end of the stage. | <ul style="list-style-type: none"> • Competition regulates the training processes. • Performance oscillation periods are common, mainly when there are training strategies adjustments, age group or event changes. • Athletes may play a double role of technical leader and teammate, contributing to younger and inexperienced athletes. |

| MANAGEMENT | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ACTIONS | INDICATORS |
| <ul style="list-style-type: none"> • Support (equipment, financial, logistics, HR, infrastructure etc.) so athletes may be totally dedicated to sport and take part in international competitions. • Sport performance monitoring of the high-performance athletes. • Future athletes ' generation educational programs with the current elite athletes leadership/mentoring. • Career transition programs. | <ul style="list-style-type: none"> • Number and structure of the specific sport practice places. • Number of sport federated athletes (men and women). • Number of athletes with possibilities to establish or keep themselves in elite, at the following cycle. • Number of international competitions – continental, Olympic and world. • Participant athletes listed in national competitions. • Participant athletes listed in international competitions – continental, Olympic and world. • National and international conquest ranking. • coaches number and qualification to the specific work at this stage competitions. • Number of athletes with possibilities to end their career at the following cycle. |

2.7

INSPIRE AND REINVENT ONESELF

This stage corresponds to the athlete's post-career transition, which may result in the entrance of participation sport context. Although the aspirations and initiatives related to each athlete's life project prevail at this new moment, the national federations can contribute to their planning and being benefited from the athletes' value and inspiration within their sport community.

The characteristics of this post-career transition period may be present in different moments of the high-performance sport system exit, at any of the previously described stages, despite it being placed after the **Win and Inspire** stage.

CASE: INSPIRE AND REINVENT YOURSELF

Carla was very excited about the meeting. There had been four years since she had met the club's group. She finished her court appointments – standing up for an athlete's cause –, went home, caught her old national team medals and uniforms, picked up Caio and Henrique, and arrived at the club 20 minutes early. The children were already there, delighted and waiting for the meeting. Photographs, autographs, hugs! She took part in the sports workshops with the groups.

Everybody was impressed with her vitality, except for who was well acquainted with her and her physical activity routine. She even started practicing capoeira again. She told her stories, showing her memories from the objects in her backpack, which were kept with a lot of affection, and got enchanted as she saw the children's eyes light up, the family and team ex-partners.

Elias was a little late. He is a coach of the youth national team which was training in the city. He got permission to take part in the event, which included his national federation. On the previous day, he had taken his athletes to get to know the club's structure, which contributed to his development a lot. They carried out the training session there, as part of the club's birthday festivities program.

Besides them, Rafaela, Marina, João, Maria, Silas, Pedro were also there, among others. The club could contact a considerable number of athletes who trained there. It was a great party! Coaches, managers and other professionals who worked at the club were also there.

They had the opportunity to laugh and cry with the stories and memories. They loved to know about their old training partner's life and the course each one of them took, many still involved in sport. More than that, what was impressive from that moment was their stories potential as an accomplishment and inspiration source for each one of them and millions of others.

THE PERSON

Several reasons may be related to the end of a high-performance sport career, like age, injuries, not being called up or qualified for the national team and even voluntary decisions associated or not to the sport performance diminishment.

These decisions, generally combined for more than one reason, may be linked to psychological suffering. Athletes tend to experience several new concerns along the transition to post-career, including occupational, financial and social demands, added to the others related to their new feeding and body patterns. This person – who had a specific status, intense training routine, competitions and sometimes appointments with media and sponsors – goes through a transition to a supporting role, or even forgetfulness, at the sport context.

The quality of the athletes' adaptation to retirement is determined by several psychosocial and developmental factors, including the reason for retiring: forced by an unexpected event consequence, like an injury or the need to support their family, it tends to be associated with a negative emotional reaction and identity loss. On the other hand, the retiring voluntary decision is linked to a more adaptive adjustment to the post-career: athletes who plan their retirement tend to experience more satisfaction with their life, thus more positive emotions. So, it is undeniable the necessity of awakening the care with post-career in athletes, which it is suggested the implementation of supportive programs, to maintain the ex-athletes' life quality within and outside the sport context.

The accomplished actions from the previous stages, which contribute to the abilities and personal development and help the athletes to manage their careers, will have a great importance at this stage. For example, athletes who have efficiently learned how to manage their finances may have this stressing factor diminished, only worrying about the other aspects. It is common that athletes at **Inspire and Reinvent Yourself** stage be contacted by media to tell their story, comment on events, among other actions. That is why it is important that the national federations may stimulate the communication abilities and oratory development, which contributes to a greater sport visibility and valuing. These communication skills are also important in other possible roles in sport, like in younger athletes mentoring or as coaches.

Likewise, the support to the double academic career, conciliating high-performance sport and the study/graduation life will prepare better the athletes at the transition period, favoring the labor market entrance.

FOR MORE INFORMATION

The athlete's transition to another career from the possibility of working as a woman/man coach is discussed in Section 2 – Women and Men Coaches Development. The suggested pathway for these professionals may be considered for other roles, especially those within the sport context.

Athletes at this stage are an inspiration for amateurs, those at previous stages and the population in general. Their reference can motivate many people to follow and engage themselves in sport and other social causes. Some examples are the athletes who become Fair Play ambassadors. Even the ones who had violated the anti-doping rules and ended the suspension period, when returning to sport, may help in understanding the violation consequences. Valuing the athletes at this stage means respecting the work they did, as well as contributing to the new athletes' and the society's development as a whole.

Therefore, the actions aiming these people acknowledgement and valuing are recommended, including the maintenance of their connection to the sport community, so they may feel that they belong to that context and can contribute to the Sport Development in general. Ex-athletes working as sport professionals at their post-career may offer a perspective to other athletes at the end of the career, extending their interest in the area.

IT IS UP TO YOU NOW!

Some ways of valuing athletes at this stage may involve the participation in events that gather younger athletes, informative material organization, books and expositions telling their stories, awards, among others.

THE SPORT

The training after the elite athlete journey

The transition planning to the sport post-career may include a new stage at the elite athlete's journey, in which the performance is not compatible to the international and Olympic level anymore, but there is still the possibility to compete at national high-level. It is not uncommon that some national team retired athletes or returned from expressive foreign leagues continue competing in national or regional level and in interclub competitions, for extended periods.

Nevertheless, athletes who spent long periods involved in training dynamics, with high physical, psychological and social demands, will have, at some moment, to adapt themselves to a new daily activities' routine, impacting the different dimensions of their life.

The training load diminishment, as the feeding consumption continues the same, results in a body weight increase, at first, requiring a good conduction to decrease the subsequent effects of detraining. Despite this diminishment, it is important that athletes keep themselves active in another routine, maintaining pleasant activities at least three training sessions a week, lasting from 30 to 60 minutes. At first, some of them prefer to say they are not going to practice that sport they have been involved with for many years anymore, though the most important is to find practices that bring life quality and pleasure.

Another sensitive matter is the attention that athletes receive. Athletes are accustomed to the training environment, trips, competitions and the visibility that the high-performance sport career generally provides. They start to get less notoriety and become people with a "common" routine. They carry out daily work activities in the chosen profession, with an extended work journey, which may be a sedentary job, with its new context compatible wage. Therefore, psychological support may be necessary and recommended, to contribute to understand and develop strategies to face this new condition, helping them in their adaptation, even after ending their competitive career.

The Competition

The performance presented in competitions may determine the decision-making process of interrupting the sport career. The performance decline, as well as the injuries accumulated throughout the career, is generally assimilated by the athletes as a sign that the end of the competitive career is close.

It is common that the athletes reduce the competition calendar and start to compete gradually in less expressive events, either to carry out contracts to finish already planned seasons or to continue motivated in the detraining process. The new body practices experimentation tends to include learning new sports, adding to the transition and post-career periods the participation in recreational competitions among amateur athletes.

Voluntary decisions related to the career ending may enable the planning of a last participation in high-level competition, which becomes a special moment of the sport community acknowledgement for the accomplishments and conquests, throughout the athletes' career.

THE MANAGEMENT

The transition to post-career is a delicate moment because the ex-athletes may be very young people, closing an intense and dynamic activity to start a new one a little bit older, within or outside the sport context. So it is essential to plan this aspect. The athletes' decision-making processes related to their retirement are multifaceted and complex, being developed for a long time, tending to last between 8 to 19 months (from the decision acceptance to the involvement in a new activity).

The sport national federations may contribute to a less traumatic process and to a successful post-career of their sport athletes. This support may provide more safety and motivation to younger athletes, so they may invest in the sport career. Awareness and counseling actions to athletes at the end of their career are recommended.

Another essential issue is the inclusion of athletes in development programs: they may be speakers or career counselors, coaches, mentors and managers able to contribute with their experience, like the athletes' commissions.

We underline that this occupation is related to the required and necessary qualification to the new role. Regarding marketing and divulgation actions, ex-athletes may be key people to engage new practitioners and investors, so maintaining their sport visibility. Either athletes or ex-athletes may be part of commissions at their national federations, the International and Brazil Olympic Committees, using their experiences to contribute with the Sport Development planning and the new athletes' generations.

THINK ABOUT IT AND MAKE A NOTE

Who are the ex-athletes of your sport? Where are they? Is there any virtual or physical gallery that gathers your sport Brazilian athletes' conquests? These actions may strengthen the history and, as a consequence, the future of the sport. They also benefit the personal accomplishment of ex-athletes who directly contributed to their sport. Finally, keeping contact with ex-athletes (in communication apps or social network platforms, for example) may be a supportive action between the ex-athletes themselves.

GIRLS AND WOMEN: RETIREMENT OR A NEW PROFESSIONAL POSSIBILITY?

We know that the participation of women as sport leaders is still low in Brazil. In elite competitions, women coaches represent about 20% and women managers, 10% of the professionals. In the Tokyo 2020 Olympic Games, women represented 26% of the total of Brazil Team coaching staff professionals. Although the society and sport cultural conceptions may be obstacles to these women occupations progress, several sport management actions may challenge this context, like the possibility of the women to continue working as coaching staff professionals, referees and managers after retiring as athletes.

Likewise men, women who were elite athletes bring an advantage to follow these careers, because they could count on the support of different professionals they had associated with throughout their sport journey. However, women are much less present in sports management than men, requiring specific actions for them. The relationships and connections are essential, either to their entrance and first experience as a sport leader or to their professional progress. Another advantage is the wide background these women had in a competitive environment, which provides them with a vast knowledge of the work context and enables them to have a great identification with the athletes.

We suggest that the sport national federations stimulate the contact between the high-performance athletes and the professionals that already work with sport, like coaches, referees and managers, introducing the different possibilities after their retirement, thus enriching the participation of women in leadership roles. We also reinforce the importance of sport policies and initiatives that stimulate the athletes' participation in development courses, for example, the quotas implementation or prioritizing the women participation in development courses, then leading to a qualification of these future sport professionals.

Table 10 - Inspire and Reinvent Yourself stage synthesis

| INSPIRE AND REINVENT YOURSELF |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERSON |
| <ul style="list-style-type: none">• Search for pleasure by other training means and intensity, many times in different sports from the one they had competed.• New social, professional and financial context adaptation, besides the demands of the new feeding and body patterns.• Adequation to a less visible role in sport context or even the detachment of the sport environment. |

| SPORT | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FREQUENCY | EXPERIENCES | COMPETITION |
| <ul style="list-style-type: none"> • 4 to 10 sessions a week. • 50 to 140 minutes per session. | <ul style="list-style-type: none"> • Gradual training load and quantity diminishment. • Engagement in new body practices. • Active lifestyle maintenance. | <ul style="list-style-type: none"> • Planning of the competitive level adjustment at the transition period, resulting in less expressive competitions. • The retirement from the national team does not necessarily represent closing the sport career. It may be extended with the participation in national, regional or interclub competitions. • The last participation in a competition may be a special moment of saying goodbye and awarding. • Starting other sports may also stimulate the participation in amateur competitions. |
| MANAGEMENT | | |
| ACTIONS | INDICATORS | |
| <ul style="list-style-type: none"> • The athletes' holistic development at all sport career stages contributes to their self-confidence and motivation to invest in this closing moment preparation. • Identification of the reasons that lead athletes to end their sports career, at the different development stages. • Awareness and counseling actions to athletes at the end of their career. • Career Transition Programs that may help the professional's life guidance and planning, including the support to work in the sport market and in the technical or management area. • Stimulation to take part in training programs of different roles in the sport. | <ul style="list-style-type: none"> • Number of benefited athletes in the Career Transition Programs. • Number of graduated athletes at the end of their sport career. • Number of athletes that continue working in the sport context after their retirement | |



SECTION 1 CONSIDERATIONS

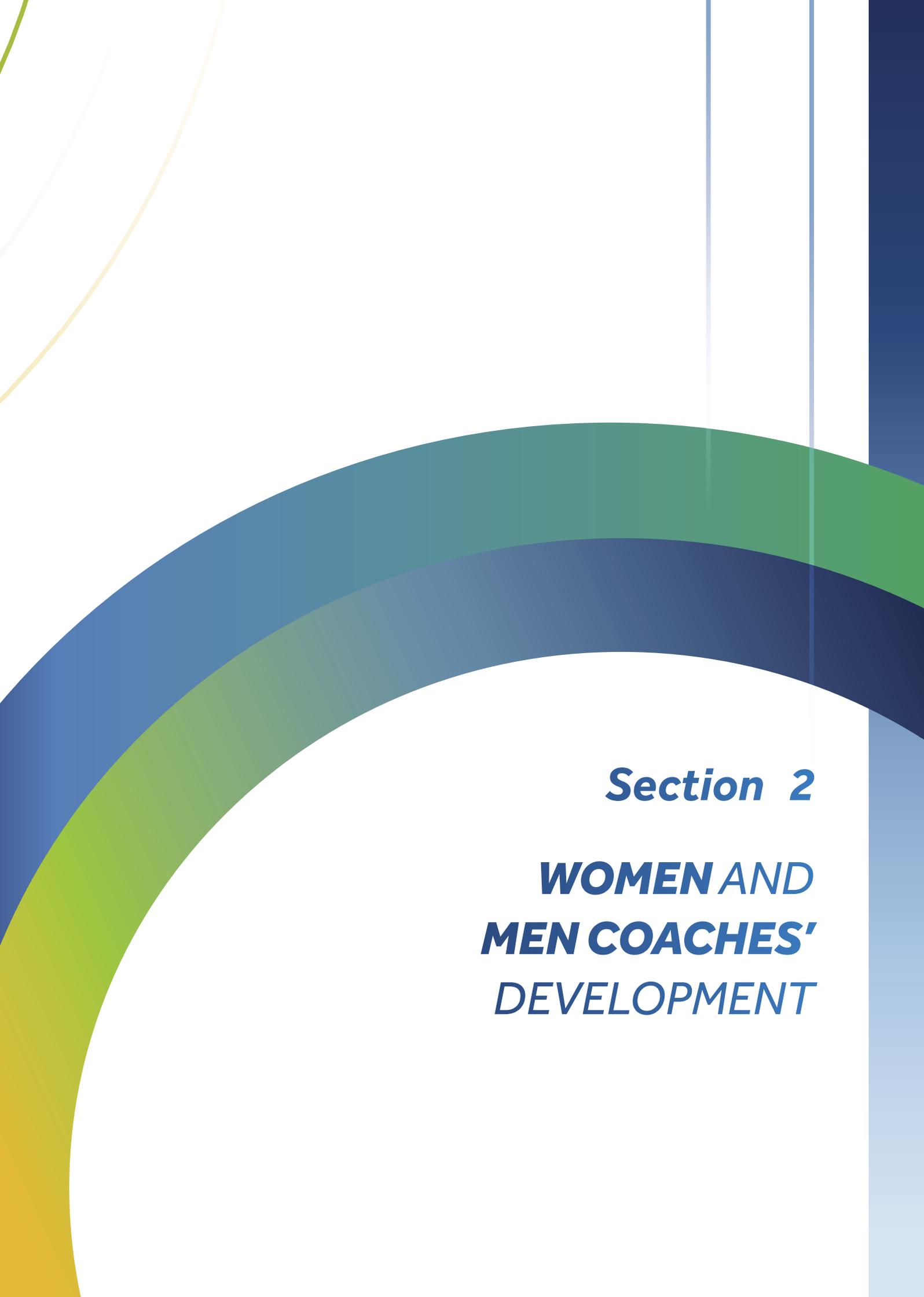
This section was formulated from a holistic point of view and respectful to the **Medal Pathway** long-term athletes' development, considered at the seven different stages. Some key-issues were highlighted:

- The athletes' development is a long-term multifactorial process: skipping stages means taking risks of damaging the personal athlete's progress.
- Children, youth and adults are in different moments of their sport development and responsibilities process. It is necessary to distinguish the sport processes of experiencing, teaching and training, respecting each moment's characteristics and potentialities.
- Historically, girls and women have had less opportunities and support to engage in sports. Programs and actions that stimulate their practice and sport development are even more necessary.
- When thinking about the whole society, some other groups have even less opportunities to access sport, related to the Medal Pathway, like black people and low-income families. The Sport Development Programs must consider the social and cultural factors.
- The holistic approach considers the athletes as integral beings so the strengthening of their physical, psychological and social development means to strengthen their sport development. Professionals from different areas may contribute to interdisciplinary work.
- The sport national federations are main agents when proposing directions to guide other organizations, responsible for the athletes' development. Active and influential national federations along with the other organizations are the starting point to establish each sport culture, besides the high-performance interest and improvement.
- Knowing and tracking athletes, checking their needs and contributing to implement specific solutions and long-term programs demands monitoring and evaluation mechanisms of who practices, where, how and the practice quality itself.

- Similar sport organizations tend to have similar challenges. The systematic contact with other national federations may contribute to collect demands and implement new actions and programs.

Offering guidance to the athletes' development is as important as supporting the sport coaches' development process. They are central agents in implementing long-term athletes' development programs when dealing directly with the athletes, being responsible for conducting the training and competition processes, challenging athletes in an adequate manner as a reference and support.

Therefore, we invite you to appreciate **Section 2 – Women and Men Coaches Development**, in which we will discuss the working, learning, training and development principles of these professionals.



Section 2

***WOMEN AND
MEN COACHES'
DEVELOPMENT***

The coaches fill a strategic position in the sport system, being recognized as one of the pillars to achieve international sport success. The quality of these professionals' work is directly linked to the professional development practice experiences throughout their career. So, stimulating the women and men coaches continuous progress is determinant to promote the sport culture, the quality improvement of young athletes' preparation and the competitive performance achievement of athletes and teams in the high-performance context.

It is important to highlight that the distinct social groups characteristics may determine opportunities to the initiation, permanency and evolution in the coaches' career. Gender, race, social class issues, among others, are conditions that represent differences in these professionals' opportunities and possibilities of working in sport. The International Olympic Committee has been adopting specific policies in order to mitigate these inequities. This section also includes specific aspects about understanding the women coaches' access barriers, as well as the strategies to promote their representativeness and increase the number of these professionals involved in Brazilian sport.

Considering the diversity of fields and complexity of the coaches work, this document does not intend to be a pattern to be followed by all national federations, but a wide and flexible reference, respecting each institution's development level and the respective sport educational needs. This section is divided into four chapters, which include: (3) Coaches Professional Activity and Learning; (4) Coaches Development Programs; (5) Coach Developers; and (6) Educational Initiatives for Coaches' Professional Development.

3

*WOMEN/MEN COACHES' PROFESSIONAL
ACTIVITY AND LEARNING*

3.1

WOMEN/MEN COACHES' PROFESSIONAL ACTIVITY AND THEIR CONTEXTS

Understanding the coaches' professional activity particularities is decisive to define the necessary knowledge and competences for their practice and to stimulate learning and development initiatives.

The diversity of contexts in which sport is offered and the multiple reasons for its practice are aspects to be considered when defining the essential principles of the coaches' professional activity. The Brazilian sport plurality may also be considered, as each sport has its performance, competition system, culture and traditions characteristics, which directly influence this professional work.

The different coaches' activity contexts are characterized by the objectives that the athletes or practitioners establish to their practice and by the sport system or institution defined goals. In Brazilian legislation (Law 9.615/1998 and Act/law 7.984/2013), there are four recognized activity contexts: Educational Sport, Formative Sport, Participation Sport and High-Performance Sport. We chose a wider and internationally used perspective in this document, highlighting two main contexts: Participation Sport and High-Performance Sport (figure 10).



Figure 10 – Women/Men Coaches' Professional Activity Contexts

The coaches' professional activity may essentially be directed to two general sport contexts. In each one of them, the professional work will be determined by the practitioners/athletes' characteristics and/or by the sport development stage they are in (CDA¹ stages). That way, it is possible to identify decisive aspects for the professional activity and development, which allows the institutions, related or not to sport, to define:

- the **common** knowledge and competences to coaches from both professional activity contexts (Participation and High-Performance Sport);
- the **specific** knowledge and competences to coaches from each professional activity context (Participation and High-Performance Sport);
- the **specific** knowledge and competences to coaches of different **ages** and **CDA stages** participants/athletes, within the same activity context.

FOR MORE INFORMATION

For a deepened understanding about the nature of coaches' activity and their working contexts, see the following references at the end of this document: CUSHION, C.; LYLE, J. 2010. JOWETT, S. 2017. INTERNATIONAL COUNCIL FOR COACHING EXCELLENCE (ICCE). 2013.

1 Athletes Development Pathway (CDA): Experience and Play, Play and Learn, Learn and Train, Train and Compete, Compete and Win, Win and Inspire, Inspire and Reinvent Yourself.

3.2

WOMEN/MEN COACHES' FUNCTIONS AND RESPONSIBILITIES

The increasing of the coaches experience, learning and professional development is usually combined with more complex functions and higher levels of responsibility. The definition of these variables allows a better description of the necessary knowledge and competences for their achievement, as well as drawing up learning and professional development strategies. Each one of the four functions presented on table 11 is applicable to both working contexts (Participation Sport and High-Performance).

Table 11 - Women/men coaches' functions and responsibilities

| FUNCTIONS | RESPONSIBILITIES |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Auxiliary Coaches | <ul style="list-style-type: none">• Support (assistant coach and coach) the training sessions conduction and competitions (regional and national).• Conduct the training sessions under the coach or assistant coach's supervision. |
| Assistant Coaches | <ul style="list-style-type: none">• Support the coaches throughout the training sessions planning, conduction and evaluation and in competitions (regional, national and international) as a member of the coaching staff.• Master the necessary general knowledge and competences to plan, conduct and evaluate the training sessions.• Carry out a general evaluation of the achieved results, proposing changes in training and competitions.• Support the auxiliary coaches in their development. |

| FUNCTIONS | RESPONSIBILITIES |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coaches | <ul style="list-style-type: none"> • Plan, conduct and evaluate training sessions and competitions (regional, national and international) throughout the season, in an independent way. • Master the specialized knowledge and competences to plan, conduct and evaluate the advanced training sessions in an independent way. • Carry out an advanced evaluation of the achieved results (in training and competitions), searching for alternative strategies to achieve solutions and meaningful changes. • Work in an independent way, performing a leadership role within an interdisciplinary team. • Contribute to the development of the less experienced coaches, assistant coaches and auxiliaries. |
| Technical Coordinators | <ul style="list-style-type: none"> • Lead and supervise the planning, the conduction and the evaluation of the training and competitions (regional, national and international) throughout the season, from younger ages to senior. • Master wide and current knowledge, as well as the ability to connect these contents. • Demonstrate an extended set of competences of planning, conducting and evaluating training sessions and competitions in an advanced level and under pressure. • Plan, conduct and evaluate initiatives for the coaches' development. • Lead interdisciplinary teams. • Work in cooperation with the different stakeholders (clubs, state federations, national federations, sponsors, communicators, among others). • Carry out an evaluation of the achieved results (in training and competition), considering the sport sciences, varying the criteria and strategies and conducting to innovative solutions. |

Each one of the presented functions and their respective responsibilities may vary according to the sport, the activity context and the CDA stages. The progression from Auxiliary to Technical Coordinator does not occur automatically. A refined work philosophy, knowledge and competences are required as the professional assumes more complex functions and responsibilities.

3.3

WOMEN/MEN COACHES' PHILOSOPHY, KNOWLEDGE AND COMPETENCES

The coaches' work philosophy, knowledge and competences define the sport experience quality that will be offered to children, youth and adults at the different CDA stages, influencing how much they will develop their sport potential (figure 11).

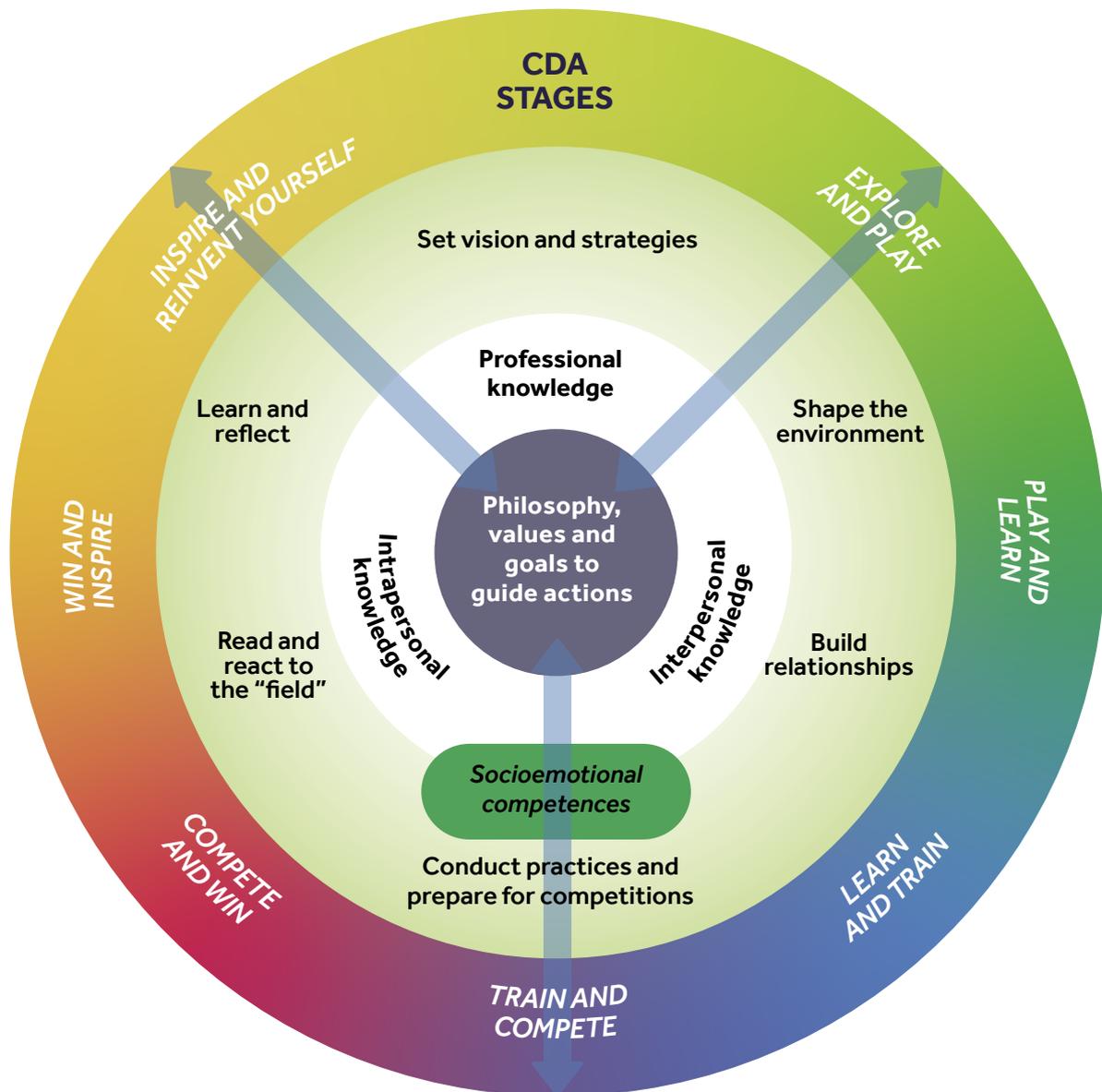


Figure 11 - Women/men coaches' philosophy, knowledge and competences

The coaches' work philosophy (central circle) and the three knowledge areas (professional, interpersonal and intrapersonal) base the competences development (central, specific and socioemotional), which are influenced by the sport context (participation sport or high-performance) and by the CDA stage in which the professional works.

Women/men coaches' philosophy, values, purposes and objectives: who am I?

KEY-CONCEPT

The women/men coaches' philosophy consists in a set of values, visions and beliefs that guide the actions and behaviors for the athletes' development and the teams they lead.

Building a comprehensible philosophy enables coaches and athletes to develop a consistent way of thinking and behaving, aligned to the performance and sport results achievements.

Table 12 - Questions for the women/men coaches work philosophy definition

| QUESTIONS AND INDICATORS FOR THE WOMEN/MEN COACHES' PHILOSOPHY DEFINITION | |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Why am I a coach? | <ul style="list-style-type: none"> • To keep myself connected to the sport field. • To educate children and youth through sport. • To develop new athletes' generations. • To promote and develop the sport at my club, city and country. |
| Which are the personal values that base my work? | <ul style="list-style-type: none"> • Friendship, fellowship, courage, commitment, determination, discipline, empathy, equity, excellency, honesty, honor, justice, perseverance, resilience, respect, solidarity. |
| What does sport mean to me? | <ul style="list-style-type: none"> • Lifestyle, profession, development opportunity. |
| What do I intend to achieve in the sport environment? | <ul style="list-style-type: none"> • Sport achievements, career success, personal development, financial return. |
| What are my responsibilities with my athletes? | <ul style="list-style-type: none"> • Accept, support, evaluate, request, care, challenge, develop, educate, teach, demand, stimulate, respect, train. |
| What does sports success mean to me? | <ul style="list-style-type: none"> • Excellency, acknowledgement, opportunity, personal fulfillment, development. |

Base knowledge to work as women/men coaches: what do I know?

KEY-CONCEPT

Women/men coaches must master a set of knowledge that bases their decisions and actions in training and competitions, accomplishing their professional functions.

The three knowledge areas that base the professional activity are presented on table 13.

Table 13 - Women/men coaches knowledge areas

| WOMEN/MEN COACHES BASE KNOWLEDGE | |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Professional knowledge Base for the professional activity</p> | <ul style="list-style-type: none"> • Sport specific knowledge (culture/values, rules, regulations, equipment, technical, tactical, physical, general and specific psychological). • Sport Sciences (physiology, biomechanics, motor development and learning, psychology, nutrition, sport medicine, antidoping). • New technologies applied to sport, use and analysis of sport data. • Sport Pedagogy Principles. • Theory and methodology of sport training. • Didactic and pedagogical principles (pedagogy and andragogy). • Long-term sport development principles. • Participants/athletes personal characteristics (biological, psychological and emotional development phases). |
| <p>Interpersonal knowledge Base for learning and development</p> | <ul style="list-style-type: none"> • Healthy and trusty relationship with the athletes and their families. • Relationship with the other professionals from the work team (doctors, psychologists, physiotherapists, nutritionists, managers, physical trainers). • Relationship with other coaches, staff, referees and sport institutions. • Professional relationship with media and the sponsors. |
| <p>Intrapersonal knowledge Base for learning and development</p> | <ul style="list-style-type: none"> • Comprehension about their personal values and work philosophy. • Critical thinking about their personal goals and objectives as coaches. • Knowledge about the functions and responsibilities of the athletes' development. • Self-analysis about their own professional activity (visions, objectives, decisions and results). • Lifelong learning and professional development. • Innovation and knowledge production. |

Central competences for the women/men coaches' activity: what do I do?

KEY-CONCEPT

The women/men coaches' competences express their demonstrated capacity of selecting, mobilizing and applying knowledge in a determined context, under specific circumstances.

While performing their professional functions, coaches accomplish a set of tasks that demand the domain and use of six central competences, as shown in table 14.

Table 14 - Central competences for the women/men coaches' activity

| CENTRAL COMPETENCES | INDICATORS |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Set vision and strategies</p> | <ul style="list-style-type: none"> • Get a wide vision of their work context. • Define a work vision/philosophy as a woman/man coach and communicate it to their athletes and other professionals. • Develop short, middle and long-term action plans and strategies. • Align their vision/philosophy and the adopted strategies with the sport system which they are part of. • Identify/analyze their work context needs. • Support and stimulate actions to strengthen the participation of girls, women and other minorities in the sport context. |
| <p>Shape the environment</p> | <ul style="list-style-type: none"> • Develop action plans to accomplish goals and objectives. • Organize the environment and the agents involved in the activity context. • Identify and select athletes and professionals determined to accomplish common objectives and goals. • Promote a safe and effective environment to their athletes' development. • Develop indicators of their work progress, as well as of the athletes and the team under their responsibility, throughout the sport season. |

| CENTRAL COMPETENCES | INDICATORS |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Build relationships | <ul style="list-style-type: none"> • Positively influence the athletes and other people/professionals involved in their activity context/domain. • Positively lead their work team (athletes, enthusiastic, coaches, support team and the other involved people). • Manage their interpersonal relationships. • Being an educator that inspires others. • Build and maintain healthy relationships with athletes, other coaches, coaching staff and professionals from their work context. • Offer opportunities and support to the athletes, so they gradually become more independent and aware of their decisions and the results. |
| Conduct practices and prepare for and manage competitions | <ul style="list-style-type: none"> • Guide/orientate the training in an efficient way. • Promote the athletes' development through appropriate sport experiences. • Apply pedagogical principles to conduct training and competitions. • Promote and manage competition situations appropriate to the continuous athletes' development. |
| Read and react to the field | <ul style="list-style-type: none"> • Observe/analyze the athletes' sport development and their team in training and competitions, providing proper feedback. • Make decisions and constantly adjust their actions. • Evaluate and make notes about important training and competitions information, which may be indicators of their athletes and team performance progress. • Identify characteristics, events and people that indirectly influence their athletes and team performance, as well as their own work. |
| Learn and reflect | <ul style="list-style-type: none"> • Reflect about and monitor their work philosophy and actions in training and competitions. • Take part in initiatives for their own professional development (courses, interchanges, workshops, communities, training camps, conferences). • Innovate, create and search for solutions to their professional practice challenges. |

Source: adapted from ICCE (2013)

Specific women/men coaches' competences for the professional activity in the different CDA stages

Added to the central competences, the specific ones are presented as follows, for the coaches' activity in the different CDA stages (table 15).

Table 15 - Specific women/men coaches' competences for the professional activity

| CDA STAGES | SPECIFIC COMPETENCES |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>EXPLORE AND PLAY</p> <p>Diversification and fun</p> | <ul style="list-style-type: none"> • Promote a propitious environment to the spontaneous experience in child's games, with a playful character. • Work as a facilitator of the general body competences development (physical literacy). • Implement strategies to develop the Olympic Values, like respect, friendship, excellence and other socioemotional competences (empathy, responsibility, solidarity, cooperation, emotional intelligence, creativity, autonomy and resilience). |
| <p>PLAY AND LEARN</p> <p>Sport initiation</p> | <ul style="list-style-type: none"> • Analyze and define the best environment, goals and strategies to stimulate and respect the children's development. • Communicate in a comprehensible and objective way with the children and their families. • Consider each child's personal learning "rhythm" (recognize the progress of each one of them). • Motivate the children to give their best while they have fun. • Approach the children and their family with respect, trust and empathy. • Work as a facilitator of the multiple social environment and the people that are part of the children's life (family, school, friends, doctors, among others). • Support the family in managing the expectancy, avoiding pressure and demands towards the child's performance. |

| CDA STAGES | SPECIFIC COMPETENCES |
|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p data-bbox="233 577 389 645">LEARN AND TRAIN</p> <p data-bbox="228 730 397 797">Sport specialization</p> | <ul data-bbox="448 277 1362 1099" style="list-style-type: none"> • Assist the athletes, guiding their sport and personal development. • Build a friendly, trustworthy and mutual respectful relationship with the athletes. • Be acquainted with the athletes' school routine and adjust the training needs. • Plan the results to be achieved in short, middle and long-term. • Gradually start monitoring the results, establishing coherent criteria with the CDA stage. • Make the athlete's family aware of being collaborative in the sport development process. • Create strategies to help the athletes keep focused on their learning goals and objectives. • Make the athletes aware of the demands in training and competition situations. • Know how to observe and direct the training according to each athlete's needs. • Interact with the interdisciplinary team and share the athletes' sport and personal development demands. |
| <p data-bbox="236 1238 386 1305">TRAIN AND COMPETE</p> <p data-bbox="233 1391 389 1487">Guiding to sport high-performance</p> | <ul data-bbox="448 1137 1347 1592" style="list-style-type: none"> • Establish a professional, mutual respect and trusty relationship with the athlete. • Capacitate the athletes to express their best in sport performance. • Assist the athletes in building training and competitions routine. • Improve and maximize the athletes' psychological aspects in training and competitions. • Motivate the athletes to search for their sport performance excellency in training and competitions. • Lead an interdisciplinary team to help the holistic/integral athletes' development. |

| CDA STAGES | SPECIFIC COMPETENCES |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>COMPETE AND WIN</p> <p>High-performance</p> | <ul style="list-style-type: none"> • Establish a trustworthy and receptive relationship with the athletes, respecting the professional interaction limits. • Understand the athletes' academic/vocational life demands and conciliate them with the training needs. • Understand and connect every context involved in the athletes' development, so they comprehend that they are being prepared to achieve high-performance. • Share the athletes' sport development work demands with the multidisciplinary team. • Keep the athletes motivated and engaged in their continuous development and improvement, managing the win and loss situations. • Analyze the athletes' performance and implement efficient strategies for their improvement. • Analyze the athletes' performance based on the official events judgment criteria. |
| <p>WIN AND INSPIRE</p> <p>Sport maintenance and improvement</p> | <ul style="list-style-type: none"> • Visualize the work, the athletes and the teams' performance in a holistic way, connecting the daily demands to the general goals and objectives. • Develop strategic knowledge to solve complex situations in training and competitions. • Behave with flexibility and creativity to adapt the decisions and actions to each athlete's individual circumstances, in training and competitions. • Evaluate the influence of all aspects that affect the athletes' sport performance and fulfillment. |
| <p>INSPIRE AND REINVENT ONESELF</p> | <ul style="list-style-type: none"> • Create situations that enable the athletes at this stage to positively influence the athletes at previous ones. • Value their athletes' sport journey. • Create opportunities to make shared decisions with the athletes about the team, the training process and the competitions. • Support the athletes in making decisions about their career transition to another occupation, including the possibility to work as coaches. |

The importance of socioemotional competences to the women/men coaches' activity

KEY-CONCEPT

The socioemotional competences refer to the women/men coaches' capacity of putting behaviors and motivational, affective and relational attitudes into practice, towards themselves and the others, in their work environment and in other social contexts.

The professional work complexity of the XXI century coach has demanded emotional and social competences to make decisions and solve problems, in several situations from training and competitions. These competences also enable the establishment of a safe and productive work environment, strengthening the interpersonal relationship with the athletes, their families, the multidisciplinary coaching staff members, the media professionals, among others.

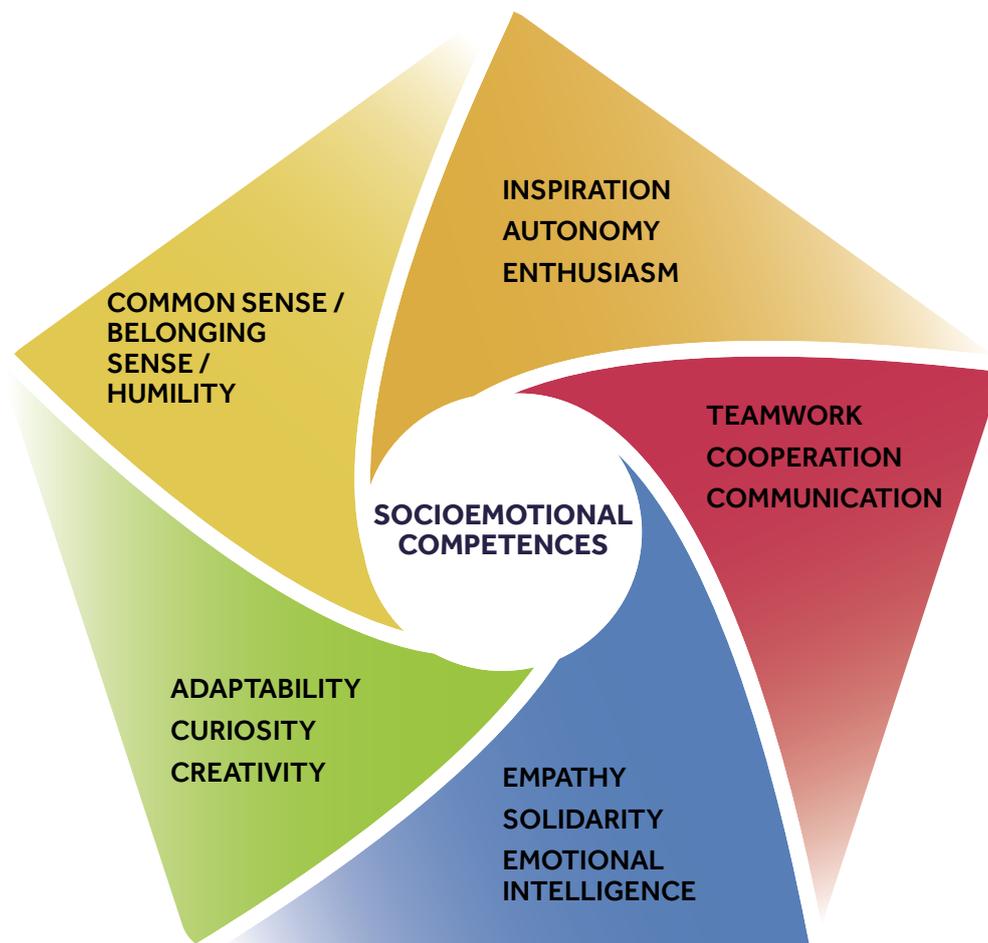


Figure 12 - Socioemotional competences for the women/men coaches' activity

The development of the work philosophy, the knowledge areas and the central and specific competences presented on this document are based on the continual participation of the coaches in different professional learning and development opportunities, carried out by the several institutions

that compose the Brazilian sport (federations, national federations, associations, clubs, among others) and educational systems (universities and colleges).

FOR MORE INFORMATION

If you are interested in more information about the women/men coaches' philosophy, knowledge and competences, check the following material: GILBERT, W. (2017); GONDIM, S.; MORAIS, F.; BRANTES, C. (2014); INTERNATIONAL COUNCIL FOR COACHING EXCELLENCE (ICCE). (2013).

3.4

WOMEN/MEN COACHES' LEARNING AND DEVELOPMENT JOURNEY

KEY-CONCEPT

Becoming a woman/man coach requires a complex and continuous process of learning and development, usually based on a sport journey background, professional training/certification demands and several improvement opportunities.

Professional learning, instruction and development are issues directly connected to the quality and effectiveness of the coaches' activity within any sport context. Herein, these issues are part of what we call the Coaches' Learning and Development Journey (JADT) (figure 13), characterized by the experiences, circumstances and meanings of each professional's journey.

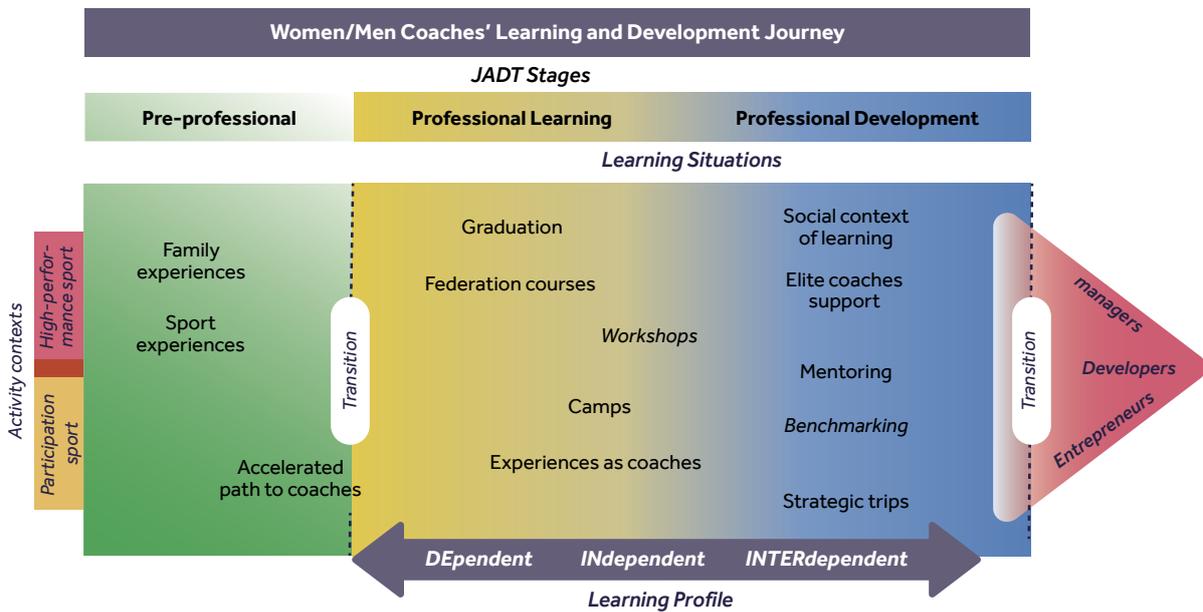


Figure 13 - Women/Men Coaches' Learning and Development Journey

This learning and development outlook considers the integration of three essential components: **a) the coaches' professional contexts;** **b) the JADT stages;** and **c) the coaches' learning profile.**

a) coaches' professional contexts

The coaches' activity and development are directly related to the environment they are in, so their knowledge and competences are applied to the context where they work, herein defined as Participation Sport or High-Performance Sport.

b) JADT Stages

JADT involves at least three stages: pre-professional learning, professional learning and professional development. Each one of these stages has experiences' particularities lived by the coaches, contributing to their identity building (table 16).

Table 16 - JADT stages descriptions

| JADT STAGES | |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-professional | <ul style="list-style-type: none">• Previous experiences to the professional choice and certification.• Joyful, bodily and sport experiences, in family and community, which enable the development of values, beliefs and visions that influence the future coaches' preferences and activity conduct.• Learning from the immersion in the family, community and sport context.• The learner depends on those who are responsible for their educational process and tends to assume values, beliefs and abilities implicitly.• The values, beliefs and abilities assumed at this stage work as a kind of filter to the subsequent learnings.• Athletes in the retirement process are potential coaches, being able to design (training and development) this career. |
| Professional Learning | <ul style="list-style-type: none">• Initial preparation or training of coaches related to a set of essential knowledge and competences to start and develop themselves in a specific sport context.• Search for the certification to access the profession – graduation institutions (universities, university centers, colleges) and sport institutions (Brazil Olympic Committee, national federations, state federations and sport associations).• Search for specific courses and learning opportunities to expand the access of women to the coach profession. |

| JADT STAGES | |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Professional development | <ul style="list-style-type: none"> • The starting point is the identification of the knowledge and competence areas to be deepened, considering the demands of working as coaches. • It is a professional practice centered process, contextualized by the work demands and developed from different strategies. • Coaches search for “the best version of themselves”. The career progress regarding the assumed responsibilities, acknowledgement and professional opportunities may be a consequence of their professional development. • The learning strategies must attend to the coaches’ needs primarily. • Lifelong learning courses (specialization and master’s degree), networks², mentoring, communities of practice³ and social learning spaces are among the most common examples. |

c) Women/men coaches’ learning profile

The educational experiences at the Professional Learning and Development stages must be in accordance with the apprenticeship profile or attitude, thus contributing to their development from the moment of the individual’s career beginning. The learning profile expresses the coaches’ cognitive and socioemotional attitude, facing the educational process challenges and their own professional activity. This profile may continuously vary from a subordinative and dependent attitude (Dependent Profile) to a more autonomous and self-guided one (Independent and Interdependent Profile) (table 17).

There are several factors that influence the coaches’ attitude, including the work environment, the professional background, as well as the educational process characteristics that the individuals have been involved in throughout their life. We also highlight the important mediator role that federations and national federations have in this process.

2 They are social interactions (in person, websites, blogs and social networks) in which the individuals exchange information about a determined issue or subject. The established social interactions are a little more “flexible” related to the commitment, enabling members from distant places to share knowledge about a common domain, in an efficient and coherent way and under the mediation of the knowledge acquired from the practice they are engaged in (OCCHINO, MALLETT; RYNNE, 2013).

3 It comprises a “[...] group of people who share a common interest, a set of problems or a passion for a specific subject/issue, deepening their knowledge and expertise in this area, interacting with each other in a continuous way” (WENGER; MCDERMOTT; SNYDER, 2002, p. 4 – TN).

Table 17 - Women/Men coaches' learning profile

| LEARNING PROFILE | WOMEN/MEN COACHES' PERSONAL CHARACTERISTICS |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dependent | <ul style="list-style-type: none"> • Depend on those who assume the responsibility for their educational process and on the more experienced people who influence them. • Tend to assume values, beliefs, knowledge and competences without great questionings. • Do not demonstrate a self-analysis attitude about their own values, beliefs, knowledge and competences. |
| Independent | <ul style="list-style-type: none"> • More aware of their work philosophy and confident about their professional knowledge and competences. • The professional background, knowledge and competences acquired throughout their career enable them to be assertive in their decisions. • Confident about their perspective, questioning other ways of working that they consider inadequate. |
| Interdependent | <ul style="list-style-type: none"> • Present a deep reflective capacity. • Challenge themselves in relation to how things are done, thus strategically work towards innovation. • Active in their own professional learning and development, being responsible for creating their apprenticeship opportunities. • Able to determine learning goals, understand the necessary resources, as well as to choose and apply adequate strategies to evaluate the achieved results. |

The learning profiles described in table 17 represent characteristics commonly found within coaches who are at their JADT Professional Learning or Development stage. Although, it is important to highlight that we frequently find coaches with a Dependent profile, which indicates resistance to reconsider and modify their professional working perspectives, even among the experienced ones. On the other hand, there are some coaches at the beginning of the career (in the JADT Professional Certification stage) who present the independent learning profile.

FOR MORE INFORMATION

To expand the knowledge about the women/men coaches' learning and development, check out the following references: BRASIL, V. (2015); RODRIGUES, H.; PAES, R.; NETO, S. (2015); TRUDEL, P.; GILBERT, W.; RODRIGUE, F. (2016).

3.5

WOMEN COACHES IN SPORT

The participation of women coaches in Brazilian sport context has been low, as well as in several countries around the world. If girls and women have been conquering space as practitioners and athletes, their presence as leaders in sport is still rare and marked by a lot of obstacles. The small historical representativeness of women as coaches is a picture of prohibitions and prejudices rooted in sport and in society.

The athletes, coaching staff professionals and managers inclusion and visibility are crucial to cause changes in the sport environment. The presence of women in decision-making roles is essential to higher gender equity sport policies. The under representation of women in a coach role is related to their low presence in other leadership positions like management posts, among other issues. When the sport management is done by men, they tend to hire other men, reinforcing the masculine domain in this environment.

FOR MORE INFORMATION

You may find more information about women managers in sport in the following references: AMARAL, C. M. D. S. (2021); FERREIRA, H. J. (2013); TORGA, M. (2019).

As men dominate the leadership positions, girls do not identify sport as a possible professional career and boys do not recognize the possibility of women taking part in this environment. Women who are models in sport have an important role in influencing girls in their professional choices, once the children can identify themselves with this profession, building confidence about their abilities as future sport leaders.

Many studies have revealed the low participation of women in coach posts, in different sports and working contexts. The feminine representativeness in sport varies according to each sport or federation, but in general this percentage is about 20% regarding the national scenario.

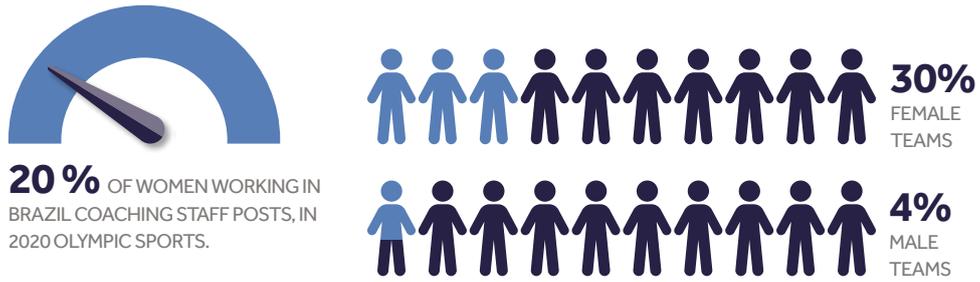


Figure 14 - Percentage of women working in 2020 coaching staffs
 Source: Adapted from Amaral et al. (2021)

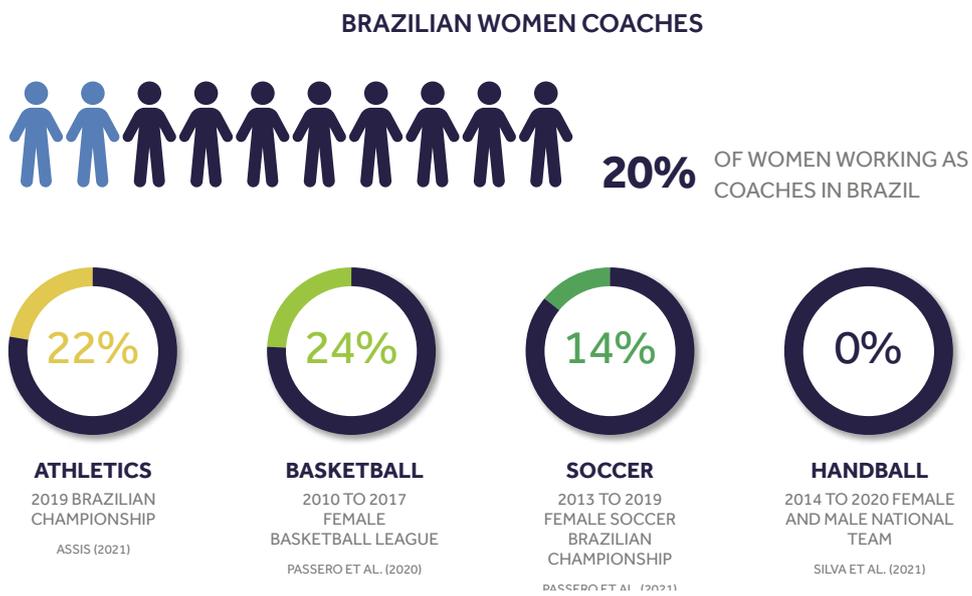


Figura 15 - Percentage of women working as coaches in Brazil

Regarding the international scenario participation, there was also a low representativeness in 2021 events.

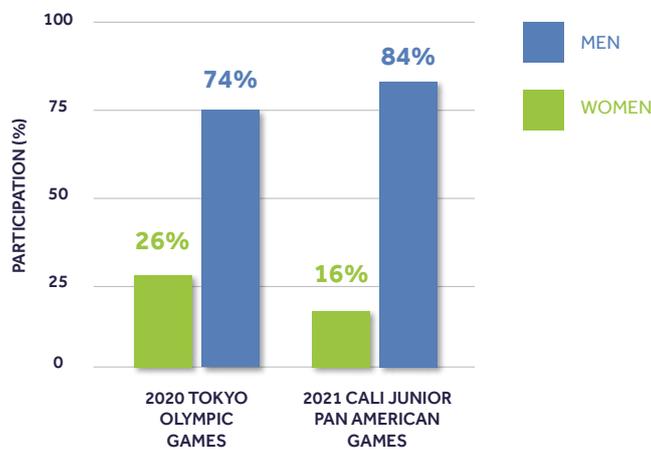


Figure 16 - Women participation in international events coaching staffs

The participation of women coaches in sport has been increasing for the last decades. Though, these post occupations restrict to roles with less visibility, working in less competitive contexts, in less visible teams and hardly ever training boys and men. It is known that the women coaches are more present in sport initiation environments and younger ages, but as they get closer to senior teams, the barriers and challenges become even greater. This scenario strengthens the necessity to create policies and actions specifically designated to women coaches in the high-performance context.

IT IS UP TO YOU NOW!

How many women coaches are there in your federation? And in your sport? In which context do they work? And managers: how many are there and which are their posts? Understanding this specific scenario in each sport becomes essential to establish sport gender equity actions.

Barriers and supports to the women coaches' inclusion

For a better comprehension of the entrance and permanency of women as coaches in sport, it is necessary to understand the different elements that directly or indirectly influence this process. We recognize that human development and experience are affected by several environmental systems, which may be classified in four levels: individual, interpersonal, organizational and sociocultural.

Table 18 - Environmental systems that influence the human development

| LEVEL | ASPECTS |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Individual | Includes psychological, personal and biological factors, like beliefs, values and the individual personality. |
| Interpersonal | It is understood from the personal relationships, like with family, friends, relatives and workmates. |
| Organizational | It is characterized by organizational policies, professional practices, spaces and opportunities. |
| Sociocultural context | Existing cultural systems and norms that affect gender stereotypes related to masculinity and traditional leadership. |

Within these dynamic and powerfully interconnected dimensions, the barriers faced by women and the support that may stimulate them to take part in sport as coaches are presented (figure 17).

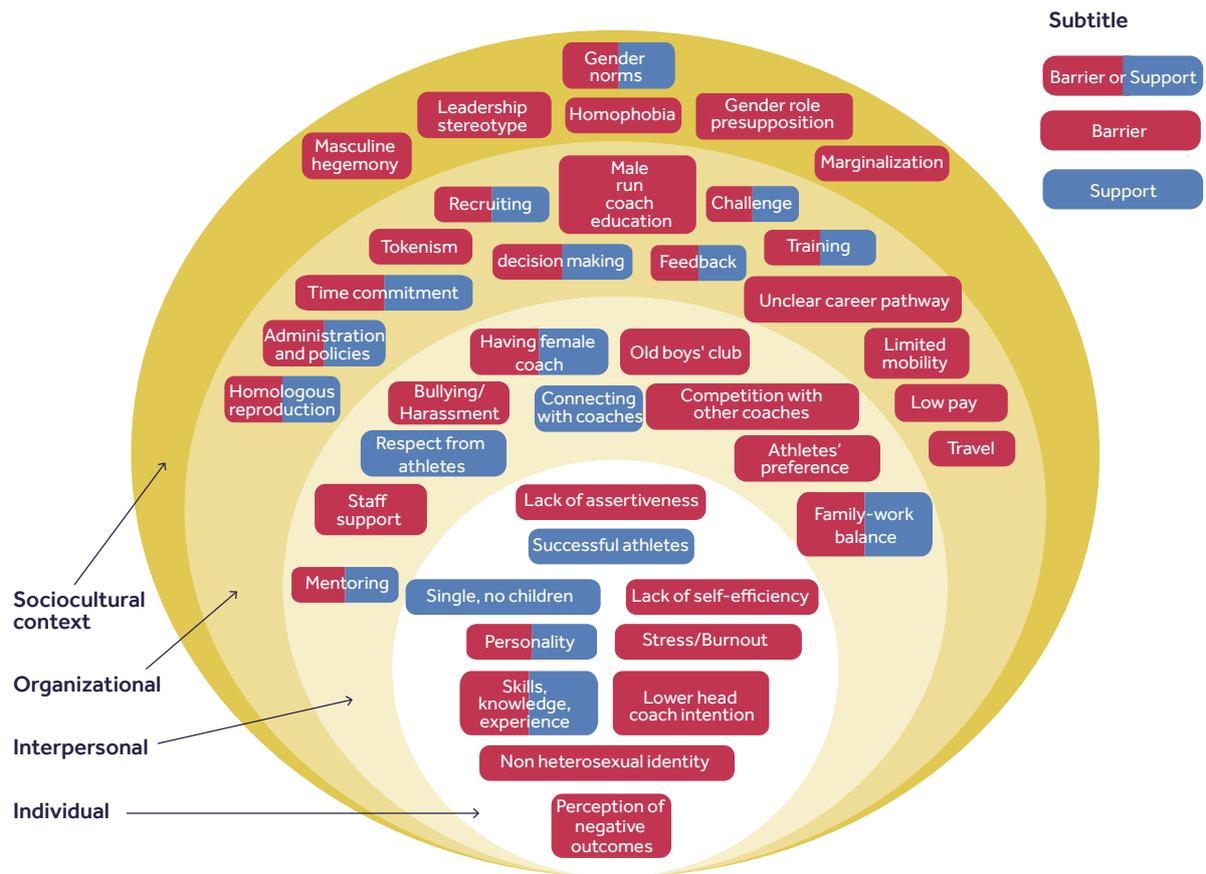


Figure 17 - Dimensions of the women coaches' support and barriers
 Source: Adapted from LaVoi and Dutove (2012)

The four interconnected levels and the several factors that compose them reinforce that the pathway as women coaches is not linear and single. Even though the first level characteristics are individual, the barriers are socially built and point to the need of specific sport policies that may challenge the masculine stereotypes in leadership posts.

The support of interpersonal relationships, from the second level, are indicated by the women coaches as essential for their professional inclusion and ascension, as well as for their strengthening and competency and self-confidence feelings development, which may also be stimulated by the sport institutions.

The third level is organizational, defined by administrative policies, posts descriptions, professional practices and opportunities. Among the challenges faced by the women coaches, there are the difficulty of entering and progressing in the career, the low wage, the learning courses given and majority occupied by men. The sport organizations, like the national federations, are at this level and have an important role in stimulating changes in the sport environment, besides proposing policies specially directed to women.

The sport institutions with specific strategies for them tend to be more successful in hiring and keeping the women coaches. Policies turned to family issues support – like building a desirable environment regarding the personal appointments, support to childhood expanses, maternity leave and support to their family members or in moments of traveling – are identified as favorable actions to maintaining women in high-performance sport coaches’ posts. The table 19 shows some confrontation actions and strategies and barriers overcoming found by women when accessing and keeping themselves in the coach career.

Table 19 - Barriers identification and support systems to women coaches

| BARRIER | SUPPORT – WHAT THE NATIONAL FEDERATION CAN DO |
|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lack of women coaches as models | <ul style="list-style-type: none"> • Expand the divulgation of women coaches who work with the sport in the communication means. • Organize meetings with the women coaches and athletes to share their professional experiences. |
| Insecurity and lack of self-confidence to work as a woman coach | <ul style="list-style-type: none"> • Promote learning courses specific to women. • Promote events to foster a contact network between the women. • Develop mentoring for women. |
| Harassment in the sport environment | <ul style="list-style-type: none"> • Create a denunciation channel, so women may report embarrassments experienced in their professional practice. |
| Prejudice related to homoaffectivity | <ul style="list-style-type: none"> • Promote actions, events and educational divulgations regarding gender identity and sexual orientation. |
| Lack of a professional perspective | <ul style="list-style-type: none"> • Promote educational events that present for athletes the possibility of working as a coach in their post-career. |
| Absence or scarcity of women as coaches’ developers | <ul style="list-style-type: none"> • Stimulate the engagement of women in being developers and speakers; balance the presence of men and women as speakers or developers in programs and courses. |

It is important that the sport institutions’ supportive actions be daily present, not only in specific moments. The national federations may collect data about the number of women coaches working at the different CDA stages, thus design a wide action plan to change the context, as an example. Induction policies like the obligation of having women in coaching staff or as developers have been good choices to change the scenario.

Understanding the barriers faced by women and the support that the national federations can offer is fundamental to develop specific sport policies to the women coaches’ necessities. It reveals a diversity of actions that may be proposed to stimulate a greater participation of women in sport. Collective actions between all levels may influence directly or indirectly the fourth level, involving the norms and cultural systems, like ideologies, prejudices and gender stereotypes, which make the women coaches inclusion and progression in sport difficult. Being aware of its engagement and worldwide leadership, the International Olympic Committee has promoted several actions

to stimulate a bigger participation of women in sport and the other sport institutions to get also engaged in this mission.

FOR MORE INFORMATION

Information and specific actions for gender equity in sport may be found in the following references: COI. (2018); LAVOI, M.; DUTOVE, J. K. (2012); VINSON, D. (2016).

4

WOMEN AND MEN COACHES' DEVELOPMENT PROGRAMS

4.1

WOMEN/MEN COACHES' DEVELOPMENT IN BRAZIL

Since the regulation of the Physical Education profession (Law nº 9696/1998), the activity of sport coaches (except for the soccer ones who have their own legislation) has been allowed only after the Physical Education bachelor's degree and the filiation in the respective Federal and Regional Councils.

The National Curriculum Guidelines (DCNs) regulate the structure of the Physical Education university courses, which include a set of knowledge and competences distributed throughout four years. Students and coaches have the opportunity to acquire general knowledge related to the Sport Sciences (Physiology, Biomechanics, Psychology, Sociology, Anthropology, Pedagogy, among others). They also develop teaching-training, evaluation, critical analysis and reflection competences, which are base elements of the coaches' activity.

The Physical Education/Sport initial learning varies according to each higher education institution's curriculum, which most of the time enables a general learning that supports the intervention in sport, especially in the Participation Sport context. On the other hand, the sport National Federations (and State Federations) and Brazil Olympic Committee compose the sport system, being responsible for the lifelong and specific learning (after the graduation in Physical Education/Sport Sciences) of the coaches, mainly to work in the High-Performance Sport context.

Therefore, the learning through the educational system and from the sport system, through Brazil Olympic Committee and/or the Sport National Federations are complementary, regarding the Brazilian coaches' professional development process (figure 18).

Generally, the learning processes offered through the sport system established particular contents of a specific sport and compatible strategies to each sport structure. However, there is not a program standardization between the Brazilian federations, which results in each one of them establishing their own guidelines to the coaches' certification and development.

Facing this scenario, we present general guidelines to contribute to Brazilian federations, to improve and/or structure their coaches' development programs.

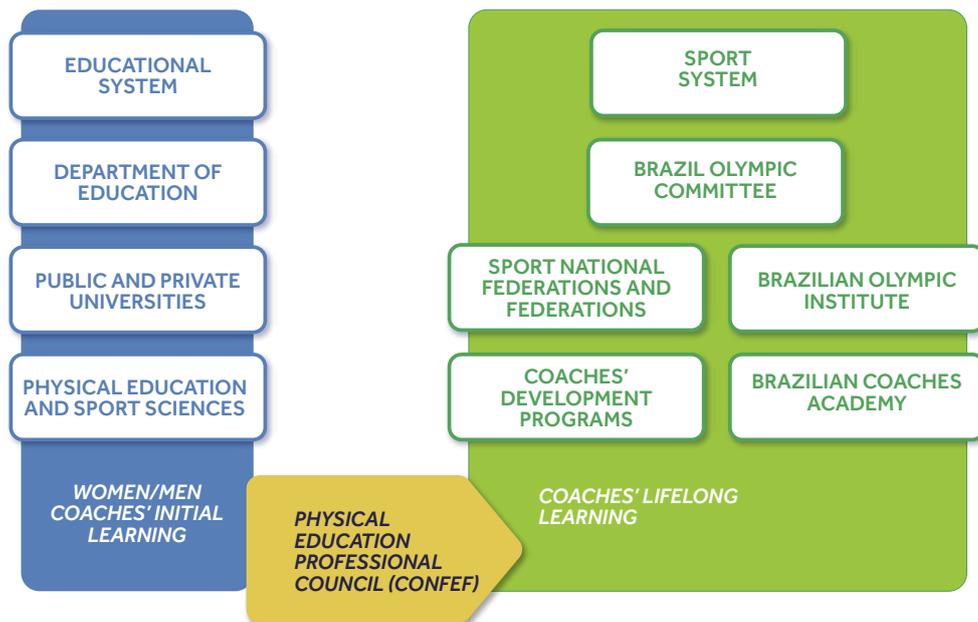


Figure 18 - Women/men coaches' means of learning in Brazil

Source: Adapted from Milistetd et al. (2016)

The lifelong learning programs are educational initiatives offered by the sport institutions through courses (like workshops and camps). The development of a coaches' development program is a complex task, involving four essential stages (figure 19): 1) Context Comprehension; 2) Curricular Planning; 3) Courses Conduction; and 4) Evaluation Processes.

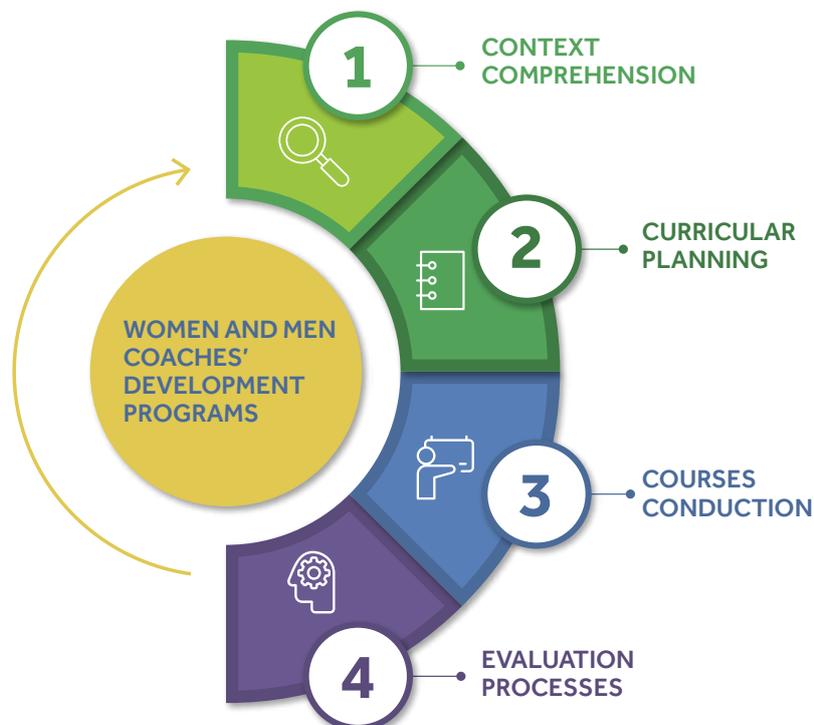


Figure 19 - Building stages of the women/men coaches' development programs

4.2

CONTEXT COMPREHENSION

The initial context analysis must be done in an understandable and objective way, with the necessary attention to collect data that will guide the building of the program to be offered. Skipping this stage may generate programs that will not answer the coaches and sports' needs, besides resulting in financial waste. To avoid misunderstandings, the context analysis must contemplate two complimentary phases: the first one involves the definition of **who** and **where we are**; the second one focuses on **defining where we are going to** and **what we need** to achieve the goals of the proposed program. Table 20 presents the attention points to be considered in the context comprehension, thus establishing women/men coaches' development programs that may be coherent and adequate to the national federations' demands.

Table 20 - Important points to the context comprehension

| | WHO AND WHERE ARE WE? | WHERE ARE WE GOING TO AND WHAT DO WE NEED? |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sport culture | <ul style="list-style-type: none"> • Consider the institution's mission and philosophy. • Identify the institution and sport(s) demands. | <ul style="list-style-type: none"> • Consider the institution's vision. • Understand the goals, objectives and achievements. |
| Women/men coaches working contexts | <ul style="list-style-type: none"> • Identify the participation and high-performance contexts. • Verify the existence of a long-term athletes' development framework. | <ul style="list-style-type: none"> • Adjust the coaches' learning with the working context and the athletes' development stage. |
| Who women/men coaches are | <ul style="list-style-type: none"> • Identify who and how many coaches are there and their functions (auxiliary, assistant and coordinators). • Verify the characteristics, demographic data, needs and remuneration. • Verify in which certification level they are. | <ul style="list-style-type: none"> • Define learning strategies to consider coaches of all levels. • Search for expansion (considering everyone) and increasing (the number of sport coaches). • Stimulate and promote opportunities to expand the coaches' board, mainly in the national federation. • Establish specific initiatives (affirmative actions, courses, training etc.) according to the demands (functions and responsibilities). |

| | WHO AND WHERE ARE WE? | WHERE ARE WE GOING TO AND WHAT DO WE NEED? |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Formative programs and initiatives | <ul style="list-style-type: none"> • Verify the existence of current formative programs and initiatives in the institution. • Identify strengths and weaknesses in your institution to be improved. • Verify the place and frequency they are offered. • Identify the existence of initiatives for the women coaches. • Identify the course requirements to work as coaches. | <ul style="list-style-type: none"> • Create or adjust a development program (modules, courses, themes, lectures, visitations etc.). • Align the program with the institution mission and vision. • Define the program's goals, objectives and expected results. • Propose special programs. • Think about the program's viability (courses format, places of its occurrence and duration). |
| Who the developers are | <ul style="list-style-type: none"> • Verify the existence of a training department in the institution. • Identify who the active developers are and their qualifications. • Verify where these professionals are and which involvement or relationship they have with the institution. | <ul style="list-style-type: none"> • Consider the establishment of a training/ education department or qualify the existing developers. • Consider the existent developers and professionals that must be hired (characteristics, qualification, experience etc.). • Seek for support and partnerships with other institutions. |
| Financial resources | <ul style="list-style-type: none"> • Verify the available financial resources. • Identify the possibilities of using the available resources. | <ul style="list-style-type: none"> • Collect expenses data (people, structure, equipment etc.) to offer the program. • Define how the resources may be obtained. |

IT IS UP TO YOU NOW!

Concerning your institution's sports culture, verify each of the table's items and note down this information. Map the women/men coaches who work with your sport and the context they work in. If your national federation already has a development program, analyze the strengths and reevaluate a way to minimize its limitations. If it does not have a planned program, start searching for all this data to enable the planning and implementation of one that answers the women/men coaches' demands and fits your budget.

Based on the considerations presented in the process of understanding the context, coaches' development programs must be guided by the sport development institution's vision, as well as by these professionals' needs.

We suggest the organization of a learning/education department to manage the programs' offer and demands, guarantee the programs planning, conduction and evaluation quality, and also create a collaborative system to support an approach based on practical and scientific evidence.

The necessary actions to create/implement development programs are several steps, demanding specialized personnel, with the appropriate time to accomplish these requirements, as we will see in detail. For those national federations which are able to create this department, the initial suggestion is to nominate a responsible person to connect to external specialists, aligning their work with the sport expectations and vision shared throughout the institution.

After reviewing what is necessary and what you want to achieve, the propositions about the path of carrying them out will guide the possibilities and strategies to start the program planning. The actions, conduction and evaluation sequence may guarantee the quality and success of the whole activity.

FOR MORE INFORMATION

To expand the knowledge and verify other examples of searching for the context comprehension, check the following references: NEW ZEALAND (2016-2020); WINDER, L.; TOWNEND (2010).

4.3

CURRICULAR PLANNING

The Curricular Planning step consists in using the acquired information and built principles at the Context Comprehension stage to structure the coaches' development program. If the sport institution already has an organized program and offers courses to coaches, it may be used as a basis to this topic reading, considering possible improvements from what is presented. If the institution does not have a program, this topic will help the formulation process with the five steps (A to E) illustrated below:

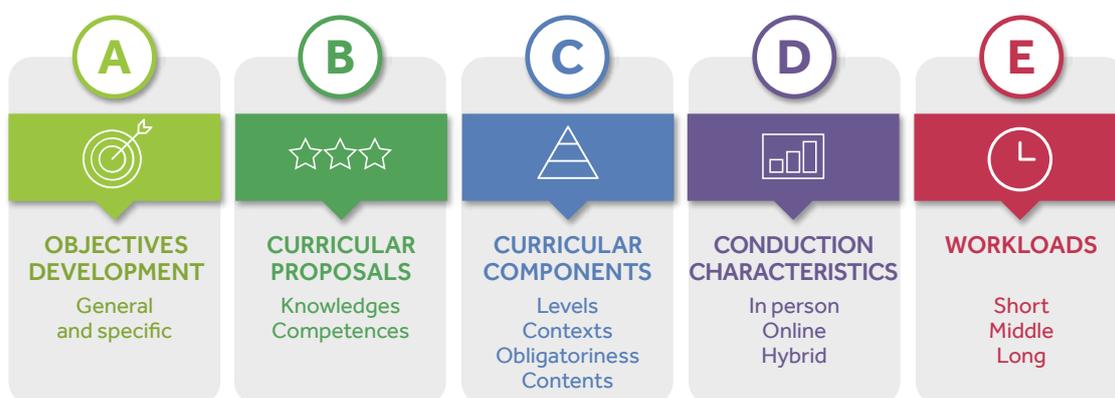


Figure 20 - Steps for the building of women/men coaches' development programs' curricular structure

Several international sport institutions have their coaches' development programs, and the national federation can use them as a baseline to develop its own. Using a structured framework of the specific international institution sport may facilitate the process because it already has the systematized relevant themes, knowledge and competences. Although, even if there is a framework, it is not recommended for its mere reproduction in the Brazilian context. Following, the guidelines to be considered when designing coaches' development programs will be presented.

Objectives development

Considering that the coaches' development program consists of several courses, the sport institution may establish general and specific objectives, either to the programs or to the courses. Thus, it must contemplate what is being searched with the educational initiatives that are offered to the coaches. The objectives may anticipate the expected results and processes from the

collaborative work between who teaches (developers) and who learns (coaches), explaining the knowledge and/or competences to be developed.

The objectives must be developed from the information collected at the Context Comprehension stage. Therefore, we present two coaches' development programs examples, developed by two national federations of different realities:

EXAMPLE 1: PROGRAM OBJECTIVE

Considering that the Physical Education undergraduate course develops knowledge and basic competences to a sport professional intervention, the National Federation X decided to build a program strictly directed at the high-performance context. So, its objective was: "Certify women/men sport coaches for a qualified intervention in the sport high-performance context".

EXAMPLE 2: PROGRAM OBJECTIVE

As a representative of a quite unknown sport in the country, the National Federation Y decided to align its program's objective with their own institutional vision: the sport massification in Brazil. So the general objective was formulated: "developing women/men coaches' basic competences to intervene and expand the sport in participation contexts".

The specific objectives will detail the already established general one. Some examples from the National Federation X are:

- Deepen the knowledge about the sport teaching for a qualified intervention with high-performance athletes.
- Improve the coaches' practice to promote a sport excellency level in the activity contexts, including the national and international championships.
- Develop advanced competences in coaches for a regular improvement and innovation within the specific sport practices.

Curricular Proposals

The development programs curriculum may emphasize the improvement of knowledge and/or competences. As seen in figure 11 (chapter 3), **knowledge** refers to a conceptual dimension of what is expected to be known by coaches (**to know what it is**). In its turn, the **competences** correspond to a practical dimension of what the coaches must know how to do (**to know how to put into practice**). Given that both proposals (focusing on knowledge or competences) can contribute to the coaches'

development and activity, it is fundamental to understand each characteristic and point the most appropriate for the established certification program objectives.

Table 21 - Certification program characteristics emphasizing knowledge and competences

| KNOWLEDGE BASED CURRICULUM | PRACTICAL EXAMPLE | COMPETENCES BASED CURRICULUM | PRACTICAL EXAMPLE |
|--------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Teaches contents that support important knowledge. | Presents important theories, themes and concepts in the sport area. | Uses contents to develop important competences. | Links the sport area theories, themes and concepts with the field of practice. |
| Emphasizes what women/men coaches must know. | Establish objectives connected to the course themes comprehension. | Emphasizes what women/men coaches must know how to do. | Establish objectives connected to what the women/men coaches must know how to do after the course. |
| Promotes the contents acquisition and comprehension. | Select themes related to the sport intervention. | Promotes the development or improvement of the women/men coaches' intervention (practice). | Select applied themes that directly contribute to the training sessions. |
| Evaluate the contents comprehension and memorization. | Elaborate theoretical tests to evaluate the learning. | Evaluate the application of the contents into practice. | Elaborate practical evaluations in which women/men coaches may perform training. |

Despite the nonexistence of a right or best option, it is essential to remember the national federation's role in the sport coaches development. Considering that these professionals have already gone through at least four years in the university environment, with several disciplines focused on conceptual and general aspects, the coaches' development programs with their curriculum based on exclusively knowledge must be avoided. Thus, it is suggested that the program be structured either in knowledge or in competences, the important ones for a qualified coaches' intervention, which stimulates the conceptual understanding as well as the capacity of putting into practice the themes discussed in the programs.

IT IS UP TO YOU NOW!

How do I know if my national federation course should be based on knowledge or competences?

Generally, all the courses aim to improve the women/men coaches' practice. However, it does not mean that all of them are based on competences. The first question to be asked is: "What is expected from the women/men coaches to develop with this course?" The curriculum based on competences is focused on the learners' behaviors, abilities and attitudes improvement or development. Therefore, the courses must include experiencing and demonstration activities of the selected competences. If the desired experience aims at a presentation or a content exposition from the developers, it may possibly have knowledge as a basis. So, basing a program or a course on knowledge and/or competences is not a mere conventional issue, but a decision that will directly influence the courses' structure, planning, implementation and evaluation.

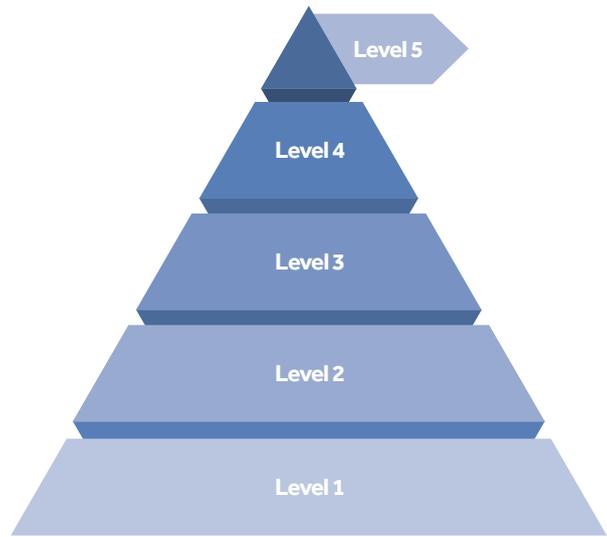
Curricular components

A development program is organized and offered to the coaches through the curricular structure. There is not an ideal or single pattern to be assumed by the sport institutions. Therefore, we present some curricular organization parameters to be considered when planning a program: the progression levels, the scope contexts, the obligatoriness and complementariness relationship and the courses contents.

Progression levels: the coaches' development programs are structured in levels like the undergraduate courses, which are organized in semesters, with an advance in each one of them and an increase of the discipline's complexity. There is not a guideline or an ideal number of levels to be offered, but the programs have been suggesting about three to five. In case the institution structures the program according to this document from the beginning, it is possible that the decision about the quantity of levels will not be made at this point. It may be easier when the institution starts the contents selection and distribution, also their respective courses workload.

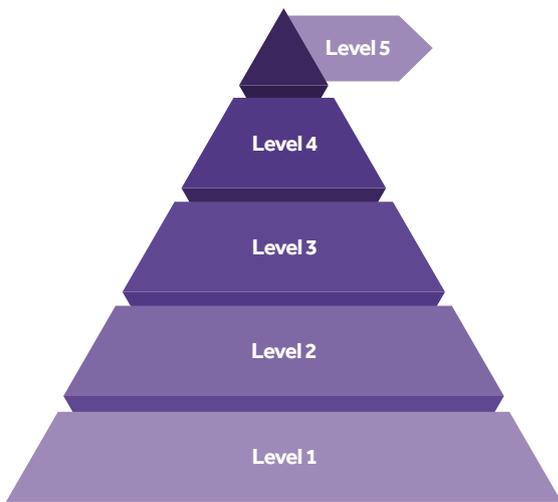
Scope contexts: the programs are historically organized with the first levels directed to the children and youth intervention (sport initiation and younger ages) and the subsequent levels for seniors. The proposal contributes to high-performance coaches' discussion about the sport initiation in its first levels, expanding their sport development comprehension. On the other hand, the children and youth coaches are limited to graduate in only one or two courses. Thus, there are two curricular structure options of the scope contexts: not specifying the courses activity context and integrating coaches from different contexts in all levels (Example I); or create two separated development ways with sequential levels that enable the coaches' progression to the maximum level of the institution program (Example II).

Example I

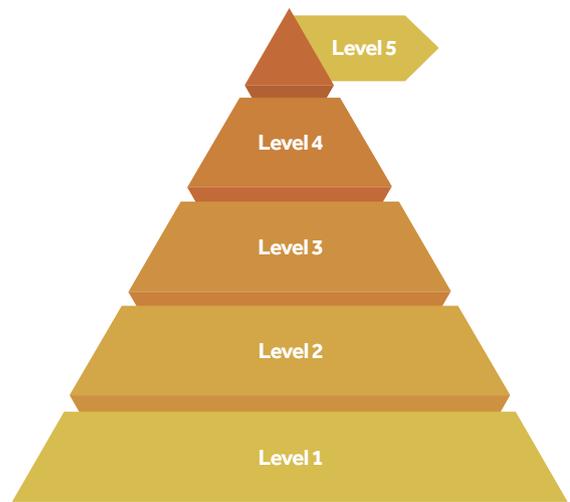


Participation and High-Performance Women/Men Coaches

Example II



Participation Women/Men Coaches



High-Performance Women/Men Coaches

Figure 21 - Examples of women/men coaches' development courses' structure organization

FOR MORE INFORMATION

Double click on the buttons below and check some examples of international institutions curricular structures:



Canadian Fencing
Federation



Snow Australia



World Rugby

Obligatoriness and complementariness: at the context comprehension step, we proposed reflections about the obligatoriness of the coaches' certification from the offered programs by the institutions. Some Brazilian national federations already consider their own development program as a prerequisite for coaches to take part in their sport official competitions. It stimulates the participation in the courses and maintains the coaches' lifelong learning in their sport, though the courses have high subscription fees and are not frequently offered in the different regions of the country, which may complicate their development. Therefore, the option for a mandatory program must be added to several debates about the possible impacts of this decision.

In case of an obligatory program, the institution may consider the following questions:

- a) Do coaches have to fulfill any course workload to maintain their certification, even after graduating from the program?
- b) Will the coaches have to make the same courses after a certain period?

A regular participation in the institution courses may either stimulate their own coaches' development or strengthen the experience sharing between the beginners and the experienced ones. This initiative has a particular importance in the women coaches' development as enabling the contact among them, also making possible the exchange of experiences regarding professional practice difficulties. The relationships strengthen and make them more confident for their professional activity.

Likewise, it is important to highlight that mandatory programs can also count on complementary courses, which may stimulate the participation of coaches who are interested in improving their own activity, thus contributing to the courses' quality. They can concentrate on the sport specific themes, like: athletes' conditioning and physical preparation; sport performance monitoring and analysis; socioemotional abilities development through sport; among others.

Courses contents: the content selection of each course is a consequence of the decisions chain that are previously made, starting from the objective and the curriculum emphasis (knowledge or competences). The general objective must be divided into specific ones, which will originate general themes, enabling furthermore the selection of contents. Table 22 illustrates the course contents definition process.

Table 22 - Contents definition process of a women/men coaches' development course

| GENERAL OBJECTIVE | SPECIFIC OBJECTIVES | THEMES | CONTENTS |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------|
| Develop knowledge and competences to conduct the sport trainings | Comprehend the factors that influence the women/men coaches' intervention | Sport introduction | Sport characteristics and culture |
| | | | Sport fundamentals |
| | | | Sport basic rules |
| | | Women/men coaches' development and intervention | PCA Cycle (plan, conduct and evaluate) |
| | | | The three sport women/men coaches' knowledges |
| | | | The six sport women/men coaches' competences |
| | Conduct trainings from current sport teaching methodologies | Fundamental basis for effective training | Promoting a positive training environment |
| | | | Establishing positive relationships with and between the athletes |
| | | Sport teaching methodologies | Teaching and training methodologies |
| | | | Communication from different methods |
| | | | Athlete centered coaching |

Ways of conducting

As technology progresses, the coaches' development programs present even more digital and online resources. In addition to the in-person courses, generally offered at the sport institutions, they have also been carrying out online and hybrid ones. It is important to highlight that the same program can be made in several formats, and the national federation must consider which best fit the program objectives, resources and interests.

In-person format: these courses have the great potential to facilitate interactions between the coaches, the experiences sharing and, most of all, the practical activities, which are indispensable components of the courses, emphasizing the competences development. However, considering the continental dimensions of Brazil, these courses also have an access limitation to women/men coaches from several parts of the country.

Online format: this format may supply the in-person courses limitations because they facilitate the coaches' access through the internet, without moving to a specific place. These courses may be offered either in synchronous way, with the coaches taking part in live, or in asynchronous way, in which video classes, reading materials, forums and other activities are available in an online platform, to be freely accessed by the professionals. However, the online format demands a great internet quality connection, tending to limit the practical activities and the interactions between the participants (especially in the asynchronous way).

Hybrid format: they present an online component (synchronous and/or asynchronous) as well as an in-person part. This format enables several possibilities of structuring the development programs. See the example below:

CASE – HYBRID FORMAT

The National Federation Z chose to design a hybrid format course, intending to use the asynchronous online courses already developed and available in their own platform. Thus, before the in-person course, the women/men coaches should make two online ones, about the sport rules and first aid guidelines. On the in-person day, the responsible coach developer asked the women/men coaches to show the online courses certification.

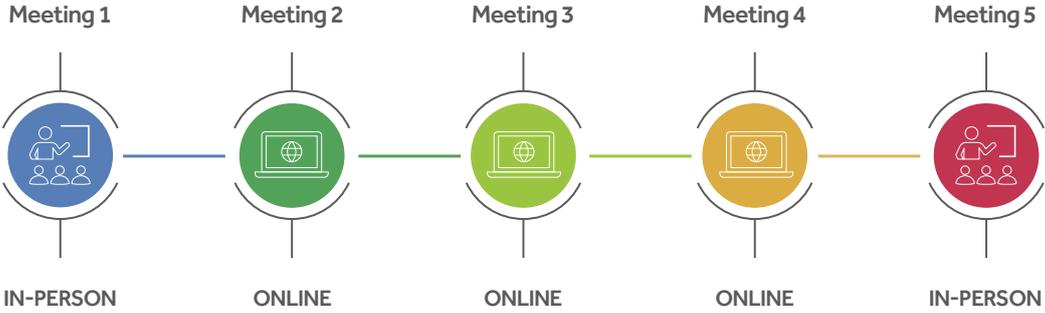


Figure 22 - Meetings sequence example of a hybrid course

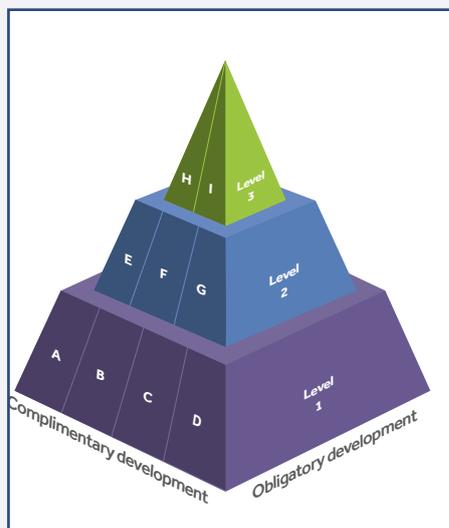
Workload

The coaches' development courses may vary between short term (one day/from 1 to 8 hours), middle term (a weekend/9 to 15 hours) or long term, with more than 16 hours distributed throughout several days and/or weekends. When selecting the program and course workload, the objectives, planned contents and format may be considered. For example, a 60 hours in-person course, distributed throughout four weekends, will demand moving investments from the coaches and the sport

institution, regarding the developers. Moreover, 10 hours for an advanced course may not be enough to contemplate the established objectives and contents. Therefore, when selecting the workload, it is important to analyze the following questions:

- What is the necessary workload to achieve the course's objective in a satisfactory way?
- Is the established workload viable for the institution, referring to the financial investment and human resources?
- Will the established workload enable the contents to be developed in an adequate way?

CASE – CURRICULAR STRUCTURE



The National Federation V designed a coaches' development program, from the context comprehension, of which the general objective was: "Develop the sport coaches' knowledge and competences for a qualified intervention in participation and high-performance contexts". From this objective, it is possible to identify the focus on a curriculum based either in knowledge or in competences, also the designated public. In addition, because of being the first action to structure their own coaches' development program, the institution used the international program as a starting point. The main information was the contents of each course and the curricular structure division in three levels.

Figure 23 - Curricular structure

Despite the international certification is not mandatory for the coaches' professional activity, the National Federation V decided that their own program would be developed in two pathways: an obligatory one, in which coaches had to be certified to work in the sport, and another complimentary, with optional thematic courses for the professionals' own needs and interests (figure 23). The pyramidal structure and the diminishment of the offered courses for the complimentary development are justified from the coaches' learning and progression process. It becomes more self-guided as they become more experienced, with an expanded certification, like suggested in the JADT proposal, on chapter 3 of this document.

An effective design of a development program from several relevant knowledge and competences is the first great step to contribute to the coaches' qualified intervention. Though, the course's impact is directly related to the way they are conducted by the developers. The programs have been criticized for the last decade for being excessively concentrated in conceptual aspects, fostering content memorization, failing at demonstrating ways of connecting these themes with practice and in different realities. So, it is crucial that the national federations be aware of structuring programs which are adequate to their own necessities, as well as developing the courses in a proper and meaningful way to develop better coaches.

4.4

COURSES CONDUCTION

The person responsible for conducting an educational process has, traditionally, the role to carry it out by the knowledge transmission to the learners, who usually assume a more passive conduct. Though, this condition has changed throughout the last decades because of the Learner Centered Teaching proposal understanding.

KEY-CONCEPT

The Learner Centered Teaching is an approach based on the adults' learning paradigm, which aims to stimulate the apprenticeship autonomy, not only the content transmission.

This proposal has five dimensions (figure 24), which suggest that learners (coaches) must actively participate in the course themes, teaching strategies and evaluative process selection. It is essential that the national federation and the developers, responsible for the courses, understand the Learners Centered Teaching principles, so they may build up new dynamics for the coaches' development program, designed from this document.



Figure 24 - Learner centered teaching dimension

Table 23 - Dimensions to provide a learner centered teaching

| | |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Women/men coach developers' role | The coach developers' role is to facilitate and guide the coaches' learning, being responsible to create a positive environment for their participation, stimulating the interaction and cooperation in the knowledge collaborative work process. |
| Balance of Power | This dimension suggests that decisions related to contents, activities and evaluation processes must be made with the coaches throughout the program/course. It is important to highlight that this decision power sharing may be gradually done, considering the course's characteristics and the coaches' maturity and autonomy. |
| Content role | The themes and contents discussed on the programs/courses may build a knowledge basis to the coaches, supporting the problem solving, daily faced in their activity routine. It is important to avoid "the more content, the best it is" logic, providing debates referring to the issues, thinking about their applicability in different stages of the athletes' development (CDA). |
| Learning responsibility | Coach developers must share the responsibility for the coaches' learning with these professionals themselves. The learners may be active agents of their apprenticeship, contributing to each other from sharing their thoughts and experiences. |
| Evaluation purposes and processes | Focusing the evaluation process on the coaches means to make it one of the learning steps. It stimulates reflections that strengthen the individual development and autonomy to a continuous learning pathway, even after the end of the course. |

The implementation of these five dimensions occurs in a dynamic and associated way. So, it would not be adequate for the developers to assume the role of a learning guide and facilitator and, at the same time, maintain the whole decision-making power about the course contents and activities. Besides, the learner centered teaching process may not be considered as a "feast or famine" proposal, if: (1) the sport institution identifies that the coaches' development courses are completely centered on the coach developers, the process might make it more about the learners; (2) between the teaching centered on the coach developer and on the learner, there is a three level progression set that must be considered (figure 25).

FOR MORE INFORMATION

Read these references to deepen the Learner Centered Teaching theme: BLUMBERG, P. (2009); WEIMER, M. (2013).



Figure 25 - Continuum of the teaching centered on the coach developers and on the learners' levels
 Source: Adapted from Blumberg (2009)

Considering the three centralizing levels proposed on figure 25, the following board presents the way each one of the five dimensions may be applied in these degrees.

Table 24 - Learner centered teaching dimensions, centrality levels of the teaching-learning process and practical examples.

| DIMENSIONS | ENTIRELY CENTERED ON THE WOMEN/MEN COACH DEVELOPERS LEVEL | CENTERED ON THE WOMEN/MEN COACH DEVELOPERS AND ON THE LEARNER LEVEL | ENTIRELY CENTERED ON THE LEARNER LEVEL |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Women/Men Coach Developers' role | The coach developers present/transmit the planned contents to the coaches. | The coach developers present the contents involving the coaches through interactions and questioning about them. | The coach developers organize the coaches in groups and create specific moments for their interaction and discussion about the presented contents. |
| Balance of Power | The coach developers follow the planned contents, activities and evaluations selected by the institution. | The coach developers follow the planned contents, activities and evaluations, but add some contents suggested by the coaches. | The coach developers discuss the planned contents, activities and evaluations and guide changes to answer the coaches' demands, without mischaracterizing the course. |

| DIMENSIONS | ENTIRELY CENTERED ON THE WOMEN/MEN COACH DEVELOPERS LEVEL | CENTERED ON THE WOMEN/MEN COACH DEVELOPERS AND ON THE LEARNER LEVEL | ENTIRELY CENTERED ON THE LEARNER LEVEL |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Content role | The coach developers present the contents that the coaches must understand and memorize to use in their activity contexts. | The coach developers present the contents using diverse strategies to facilitate their applicability in different realities, after the end of the course. | The coach developers stimulate the coaches' reflection about the presented contents, using diverse strategies, schemes and resources to strengthen their learning. |
| Learning responsibility | The coach developers assume the whole responsibility, present the contents and make small pauses to ask the coaches about their doubts. | The coach developers assume a great part of the responsibility and present the contents, fostering their opinion and previous experiences sharing, occasionally. | The coach developers share the responsibility and organize the coaches in work groups to share experiences, help and give each other feedback. |
| Evaluation purposes and processes | The coach developers evaluate the contents memorization from a written test, at the end of the course. | The coach developers give feedback to the coaches throughout the course, using a reflective activity about the presented contents at the end of the course. | The coach developers propose short evaluations connected to the contents throughout the course and develop a self and peers' evaluation. |

It is important to remember that the coach developers have an essential role in providing a safe and comfortable learning environment for the people in development. Therefore, when performing a learner centered teaching, it is crucial to be sensitive to the social, cultural and economic issues, which mark the different participants' backgrounds.

IT IS UP TO YOU NOW!

Check these hints to implement the learner centered teaching in the women/men coaches' development courses from the national federation you work in:

Get acquainted with the coaches: before, in the beginning or throughout the course, ask about their background, previous experience, activity context and the characteristics of their workplace.

Create a positive learning environment: enable a comfortable and motivated atmosphere to the coaches, so they may feel pleased in asking questions and contributing to the knowledge collaborative building.

Make the curricular structure more flexible: search for a balance between the contents and planned activities for the course and the participant coaches' demands.

Make the content application more flexible: the coaches must be stimulated to adapt and apply the course contents according to their competences and workplace realities.

Stimulate interactions: organize activities that generate discussions and work in groups, thus the coaches can share their previous difficulties and experiences.

Consider multiple perspectives to be evaluated: offer the coaches moments to think about their interventions, receiving feedback from the coach developers and the other course mates.

Prepare long-term evaluations: plan activities that engage the coaches in a long-term reflective and evaluative process.

Make gradual changes in your performance: think regularly about the way the development courses are conducted and search for implementing actions and activities closer to the learner centered teaching.

Variables that influence the teaching and learning centrality

It is not an easy decision to opt for a program or course that may be more centered in the coach developers or learner, mainly because there are several variables influencing the process. We have illustrated six of them in the figure 26 below and detailed their influence later.

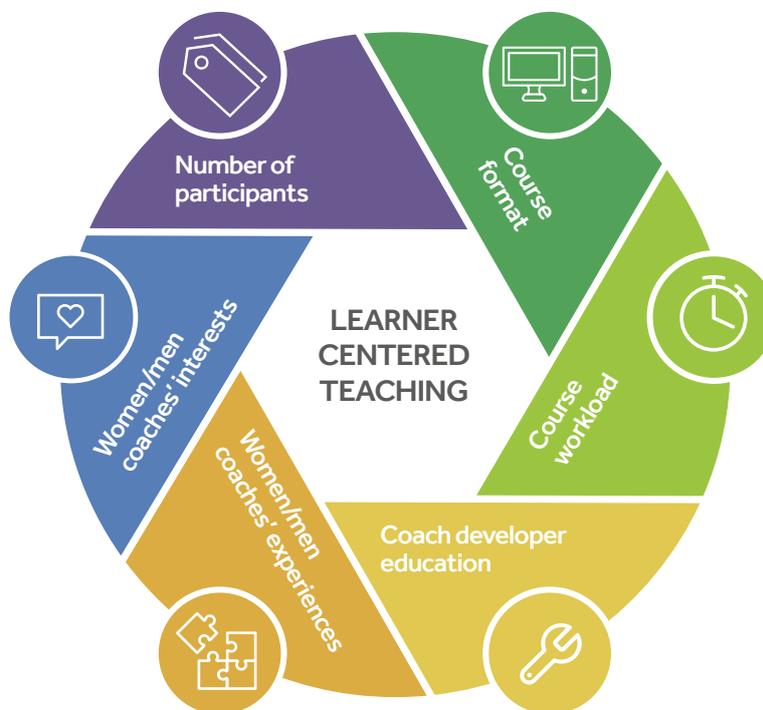


Figure 26 - Variables to implement the Learner Centered Teaching

Source: Adapted from Blumberg (2009)

Format conduction: the in-person courses are potentially more learner centered, from their structure to other aspects. For example, coach developers may organize the tables and chairs for the coaches to sit together in small groups, facing each other, strengthening their interaction and cooperation. In online formats, the courses may also be learner centered, but it demands technological resources and higher expertise from both of the professionals, coaches and developers, including an active participation with the webcams on and the audio or chat interaction.

Workload: short-term courses (from 1 to 8 hours) are, generally, more centered in the coach developers, because they already have punctual objectives and themes, complicating their flexibility. The ones with a greater duration will enable the coach developers to be acquainted with the coaches, thus having more opportunities to make changes in the course planning and answer the participants' demands.

Participants' experience: as presented in the JADT framework, the professional certification stage counts on the participation of coaches in several training courses, and the development stage on a more individual and self-guided process. Therefore, for the last few years, it's been noted that the less experienced coaches tend to search for contents selected and mediated by experts. On the other hand, the more experienced coaches prefer to take part in more collaborative environments. So, the learner centered teaching may be facilitated in courses with a bigger number of more experienced coaches.

Participants' interest: one of the main human learning aspects is the opening and motivation to learn. The coaches who demonstrate an engagement and motivation to take part in the course tend to contribute to a favorable environment of sharing experiences, thus more learner centered. The coaches' interest may also appear throughout the course, resulting from instigative strategies used by the coach developers.

Participants number: it may be a challenge to a coach developer to search for more learner centered principles in a course with 80 coaches, for example. In fact, the learner centered teaching is easier when the number of participants is about 15 to 20 coaches. So, the coach developers can consider the teaching and learning centrality through the number of professionals registered for the course.

Coach developers' development: when the courses are offered by coach developers who have been through a training process and developed specific competences to instruct coaches, the learner centered teaching becomes more viable. Besides, coach developers who have not gone through this process will hardly ever establish a learner centrality, even if the course would be propitious to this pedagogical orientation. That is because this variable comes at a superior level, compared to the others. So, it is fundamental that the national federation also offers development programs and courses, thus enabling the coach developers to improve their instructional and didactical competences (chapter 6 of this document will discuss this matter in further detail).

Hereafter, we present two fictional cases that indicate some sport institutions improvement initiatives, to illustrate how these variables may influence the conduction of the women/men coaches' development course.

CASE 1 – DEVELOPMENT COURSE LEVEL 3

Twenty coaches registered in a course offered by the P. National Federation. Its objective was to develop competences to the sport intervention, considering a team planning for the season. Because of being a level 3 course, the coaches were already experienced in that sport, some of them with more than 10 years of work. The course format was in-person and it would be held throughout four weekends, in four months, totalizing 60 hours of workload. These were the information that Thais had – the woman coach developer –, master in Physical Education, teacher at a private college and certified from that sport international institution as a coach developer. When starting the course, she noted that the coaches were motivated to learn and develop themselves, so she decided to assume a **more learner centered approach**.

CASE 2 – SPORT TECHNICAL WORKSHOP

Sixty-five coaches registered in the workshop offered by the Q. National Federation. Its objective was to present the Brazilian national team planning and the way that some technical fundamentals of their sport were being taught to the national team athletes. It was a heterogeneous group, consisting of experienced and new coaches. The course format was online, and it would be carried out in one day, totalizing six hours. These were the information that Julio had – the man coach developer –, graduated in Physical Education, Olympic Games medalist and national team coach assistant. When starting the course, he noted that only a few coaches had their webcam on, so he decided to assume a **more self-centered approach**.

Despite these cases representing different courses, it is important to highlight that the same course, offered by the same coach developer, but for different coaches, can be more (or less) learner centered. Then, the option for a centrality level on the coach developer or on the learner must come from the institution general guideline, referring to the whole program or to each course. Moreover, the coach developers may also be flexible in making decisions about the centrality from perceiving their self-confidence and competence, as well as the participants characteristics (interest, experience, quantity).

Teaching strategies

Whether centered on the coach developers or on the learners, the course teaching strategies possibilities are beyond the instructions of a slide presentation, characterizing a coach developers centered choice. Assuming strategies that engage the coaches in practice, interactions and reflections is essential to strengthen the course effectiveness, thus centralizing the teaching more on the learners. Five teaching strategies are presented below, widely used in coaches' development international programs, which may inspire others to be offered by the national federations in Brazil.

Table 25 - Teaching strategies used in women/men coaches' development programs

| TEACHING STRATEGIES | DEFINITION | OBJECTIVES | APPLICATION EXAMPLES |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Questioning | Use of questions throughout the course conduction, aiming to stimulate the coaches' reflection and participation. | Identify the previous knowledge. | What do you know about the elements that must exist in a team planning? |
| | | Awake the interest. | Have you already thought that the socioemotional abilities may help the athletes' performance in decisive moments of the competition? |
| | | Stimulate reflections. | How can these contents fit your reality? |
| Work in groups | Coaches arranged in small or big groups, for collaborative work in an activity. | Stimulate the experience sharing. | Ask the group to share the training plan they use in their clubs. |
| | | Stimulate the cooperation. | Ask the coaches to interpret one match scouting, designing a training plan that answers to the identified demands. |
| Practical activities | Activity that enables the coaches to demonstrate the connections between the course contents and the practical contexts. | Make the practical use of the contents possible. | Challenge the coaches to create a training plan that includes the information discussed in the course. |
| | | | Ask the coaches to offer training from a specific methodology. |
| | | | Play a competition video, so the coaches may analyze the athletes' performance. |

| TEACHING STRATEGIES | DEFINITION | OBJECTIVES | APPLICATION EXAMPLES |
|-------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Video reflection | Use of videos to stimulate the coaches' reflection. | Encourage debates about a specific situation. | Play a video of an athlete's unsportsmanlike conduct and ask how they would act facing that situation. |
| | | Stimulate individual or collective reflection. | Use video with coaches talking about their work philosophy to stimulate the development of their own principles. |
| Problem based learning | Use complex and real problems to stimulate the coaches to design action plans to solve them | Encourage reflections about a specific situation. | Present cases of athletes with performance difficulties in training and competitions, asking the coaches about possible actions to take. |
| | | Facilitate the perception of a problem-situation. | Use cases of professional athletes facing depression and ask the coaches to design an action plan, which connects a multidisciplinary team (psychologists, nutritionists, physical trainers, doctors etc.). |

Course conduction planning

Like coaches preparing a training, the coach developers must plan the conduction of a course. Therefore, these professionals have to receive from the institution the necessary information to organize their own course conduction plan. The data may refer to the objectives, curricular structure, available material and physical resources and the coaches who are registered for the course. It will enable the coach developers to think about the learner centrality level to be assumed, if they will make changes on the planned contents and which teaching strategies will be chosen. Here is a case to illustrate the organization of this planning process.

CASE – COURSE TEACHING PLAN

This was invited by her national federation to offer a 15 hours course, two months beforehand, distributed throughout a weekend (Saturday, from 8 to 12 pm and from 2 to 6pm; Sunday, from 8 to 12 pm and from 2 to 5 pm), for 20 initiating coaches. The course would be held at a national federation partner hotel, offering a room with table, chairs, datashow and the access to a multisport court. When receiving the information about the participant public, This started designing her course teaching plan, aware of the interest to assume an approach centered on herself, as well as on the learners. This' planning is below:

Course: Level 1 Development

Participants: 20 coaches

Workload: 15 hours

Responsible: This

COURSE GENERAL OBJECTIVE

- Develop knowledge and competences to conduct training of the sport.

COURSE SPECIFIC OBJECTIVES

- Comprehend the factors that influence the sport coaches' intervention.
- Conduct the training from contemporary methodologies of teaching sports.

CONTENTS

| THEME 1 | THEME 2 | THEME 3 | THEME 4 |
|-----------------------------------|----------------------------------------|-------------------------------------------------------------------|--------------------------------------|
| Sport characteristics and culture | PCA Cycle (plan, conduct and evaluate) | Promoting a positive training environment | Teaching and training methodologies |
| Sport basic fundamentals | The three sport coaches' knowledge | Establishing positive relationships with and between the athletes | Communication from different methods |
| Sport basic rules | The six sport coaches' competences | | Athlete centered coaching |

TEACHING STRATEGIES

- The course will be offered from the contents' oral presentation, questionings, group assignments and practical activities.

EVALUATION

- Participation in the course and in the proposed discussions (5 points).
- Training quality developed in the practical activity (5 points).

| DAY/TERM | THEMES | ACTIVITIES |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Day 1 Morning | <ul style="list-style-type: none"> • Introducing the sport • Sport coaches' development and intervention | <ul style="list-style-type: none"> • Coach developer and participants' initial presentation • Contents presentation • Questioning and group assignments about the themes |
| Day 1 Afternoon | <ul style="list-style-type: none"> • Essential basis for effective training • Teaching methodologies | <ul style="list-style-type: none"> • Contents presentation • Questionings and group assignments about the themes • First practical activity for participants to offer in training |
| Day 2 Morning | <ul style="list-style-type: none"> • Sport teaching methodologies | <ul style="list-style-type: none"> • Contents presentation • Questionings and group assignments about the themes |
| Day 2 Afternoon | <ul style="list-style-type: none"> • Sport teaching methodologies | <ul style="list-style-type: none"> • Second practical activity for participants to offer in training • Reflections and feedback about the practical activity and course closing |

4.5

EVALUATION PROCESSES

Evaluation is one of the crucial elements of any educational process. Despite it traditionally seeming to have a learner accountability role, in which they must prove their own development to the responsible for the courses, it is important to expand the understanding about the evaluation purposes. Some of them are highlighted below:

1. Identify the coaches' perspectives, knowledge and competences;
2. Track and contribute to the coaches' learning throughout and at the end of a development program/course;
3. Offer pertinent information to the coach developers and sport institutions to provide the course's improvement.

Understanding the evaluation nature and purposes means to perceive that it is a learning process stage. Therefore, it must be connected to the teaching strategies used on the course conduction, constantly occurring and in different ways, not only at the end of the course, through a written test. Besides, all of the teaching strategies mentioned before can (and must) include evaluation processes. For example, the coach developers can use the group assignments presentations to stimulate and evaluate the coaches' learning about the discussed themes. Meanwhile, they analyze the existence of a deficit in common among the participants, which should be avoided by their own intervention improvement in the following course.

The evaluation processes implementation at the coaches' development programs must be aligned to their objectives. At this moment, the institution's decisions related to the curricular proposal (based on knowledge and/or competences) are the main aspect to be considered. The evaluation characteristics of each one of them will be deepened below.

Knowledge based evaluation: given that knowledge refers to a more conceptual learning dimension (to know what it is), the evaluation might be guided by this aspect. There is not a concern about the practical use of the content. Thus, the evaluation refers to the way the learners understand the discussed themes and memorize the main elements. The knowledge based evaluations generally happen through tests or written tasks, but we suggest that it may also be done with more interactive dynamics, like debates in small or big groups. One of the knowledge based evaluation weaknesses is that it stimulates the coaches to memorize the contents for the tests, in spite of comprehending their applicability in the practical field.

Competences based evaluation: while the first process includes a more conceptual dimension, the competences evaluation aims to verify how much the learners have developed their capacity to put the discussed themes into practice. It is necessary to create activities that enable the learners to demonstrate the developed or improved competences. So, the coach developers give concepts by the time the learners present the indicators of the desired ability. However, it might be avoided that the competences based evaluation search for desired behaviors, stimulating the coaches to demonstrate them in an artificial and decontextualized way. It is essential that the competences be related to these professionals' real necessities and to their application in different intervention contexts.

The course format (in person, online or hybrid) will influence the possible evaluation strategies. There are several types of evaluation at in-person courses, including tests, written tasks, oral presentations, practical activities, among others. In online courses, the possibilities are more limited, especially in competences evaluation. We suggest that the coach developers ask the coaches to send documents related to their own planning, as well as audios and videos of their activities at work, as an alternative. In hybrid courses, the coach developers can use the online meetings to present the tasks or evaluations, asking the coaches to send back or present them at in-person moments.

Table 26 – Evaluation examples of online format

| ONLINE FORMAT | | |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| THEME | EVALUATION IN A KNOWLEDGE BASED COURSE | EVALUATION IN A COMPETENCE BASED COURSE |
| Sport coaches leadership and communication | Ask the coaches to organize a set of documents (portfolio) with information about their own work philosophy, the different kinds of leadership in sport and their respective strengths and weaknesses. | Ask the coaches to record audios and videos of their own training sessions, including the chats before and after the game, so the coach developer may analyze their leadership and communication with the athletes. |

Table 27 - Evaluation examples of in-person format

| IN-PERSON FORMAT | | |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| THEME | EVALUATION IN A KNOWLEDGE BASED COURSE | EVALUATION IN A COMPETENCE BASED COURSE |
| Long-term athletes development | After presenting the theme, divide the coaches in groups, ask them to write a document with all the studied stages and the main elements to be considered in a sport training. | After presenting the theme, divide the coaches in groups and designate a development stage to each one of them. The groups will have to plan and offer appropriate training to the characteristics of the selected stage. |

Table 28 - Evaluation examples of hybrid format

| HYBRID FORMAT | | |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| THEME | EVALUATION IN A KNOWLEDGE BASED COURSE | EVALUATION IN A COMPETENCE BASED COURSE |
| Sport teaching methodology | After finishing each theme (either in-person or online modes), hand/send a reflective quiz with descriptive and multiple choice questions about the theme. | In online mode, divide the coaches in groups and assign different problem-situations. They will have to prepare a presentation and a training plan. When at the in-person moment, the professionals will present the analysis they made about the problem-situation, then offer a training session that answers the identified demands. |

The evaluation may not necessarily result in a grade or concept assigned to the coaches, despite the term being generally related to tests. Besides, the impact of the development program in the coaches' intervention can be verified in a longitudinal way, considering the lifelong and long-term learning. Thus, establishing strategies to verify and track the learning in a determined period, after the development course, may facilitate the coaches' regular improvement.

IT IS UP TO YOU NOW!

If the national federation that you work in already has a women/men coaches' development program, identify whether the evaluation processes generally used are knowledge or competence based.

Check how the evaluation processes answer to the three purposes selected at the beginning of this topic and which improvements can be done.

Promote interactions between the women/men coach developers, so the new evaluation processes may be created and implemented.

5

*COACH DEVELOPERS
OF WOMEN AND MEN COACHES*

The search for the improvement of training conditions and athletes' development process in all levels has expanded the interdisciplinary coaching staffs, also the emergence of new women/men coaches' certification programs, in different sports. In order to prepare these coaches to the increasing challenges about their interventions in the 21st century, a new professional has been highlighted at the sport system, internationally known as a **Coach Developer**.

KEY-CONCEPT

Like the women/men coaches help the athletes to develop their potential and achieve success in their sport, the coach developers have the role of contributing to these coaches to become even better.

The complexity of the coaches' development process, characterized by the involvement in different learning opportunities, makes the coach developers' mission challenging. Identifying and selecting the professionals who will work in this function are key tasks for the success of these programs. Added to the professional knowledge and experience with the specific sport, these coach developers must be determined to support and stimulate other people's evolution, deeply understand the adults learning process, connect theory and practice, besides counting on their peers' acknowledgement and legitimacy.

The coach developers can assume different roles, according to their activity context, like workshop instructors, development course facilitators, mentors in training practical environments, learning programs coordinators in sport clubs, among others. So, even if the experienced coaches already have the responsibility of supporting similar professionals at their work or in coaching staffs, it is essential that the coach developers be certified in specific programs. They need to establish competences related to the coaches' lifelong learning in different levels and contexts. The coach developers' fundamental competences will be presented throughout the chapter.

5.1

WOMEN/MEN COACH DEVELOPERS COMPETENCES

To promote coaches' learning in several contexts, the coach developers have to master different competences, which are organized in three axis: a) Learning Environment Structure and Planning; b) Supporting the Coaches' Professional Development; c) Evaluative Processes Implementation.

Table 29 - Description of the coach developers' professional competences

| LEARNING ENVIRONMENT STRUCTURE AND PLANNING | |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Analyze and identify knowledge demands | <ul style="list-style-type: none"> • Recognize the current coaches' development status, identifying the learning pathway, their challenges and preferences for the different learning opportunities. • Understand the coaches' work context, identifying the necessary knowledge and competences to their professional activity. |
| Production of learning material | <ul style="list-style-type: none"> • Prepare supportive material using different strategies and formats (infographics, e-learning, podcasts, books, articles, reflective diaries, among others). • Bring the scientific knowledge from different areas of the Sport Science close to the women/men coaches' activity context, through a simple, usable and aligned communication. |
| Plan learning environments | <ul style="list-style-type: none"> • Plan learning sessions and environments, based on the Learner Centered Teaching principles. • Make different learning situations possible to answer to this process of multifactorial characteristics. |
| Set up professional support networks | <ul style="list-style-type: none"> • Facilitate the coaches' access to professionals and support networks, composed of different areas specialists, so they may optimize their learning process. • Facilitate the coaches' access to reach other more experienced professionals. • Promote experience sharing moments between the women coaches, so they can think about the challenges faced day by day and strengthen themselves regarding their professional competences. |

SUPPORTING THE COACHES' PROFESSIONAL DEVELOPMENT

| | |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Facilitate courses and workshops</p> | <ul style="list-style-type: none"> • Using diversified strategies, create different learning situations according to the involved professionals experiences, preferences and characteristics. • Intermediate the learner centered process considering the participants previous experience and the practical problems resolution, stimulating the sharing of information. • Encourage an individual and collective way of thinking about the application of knowledge in the coaches specific contexts. |
| <p>Manage Social Learning Space</p> | <ul style="list-style-type: none"> • Create a positive learning environment, based on confidence and safety relationships, which stimulates the coaches to share their experiences and points of view. • Balance the power relationships, establishing a horizontal alignment for the coaches, enabling the co-creation of knowledge, competences and values. |
| <p>Promote women/men coaches mentoring</p> | <ul style="list-style-type: none"> • Use strategies that strengthen the learning process through discussion of real problems and collective thinking about the coaches' practical experiences. • Support the women coaches in identifying the main barriers on their professional development, considering the specificities of their work context. • Support the women coaches in formulating, implementing and evaluating development strategies, related to the identified challenges and barriers. |
| <p>Establish an effective communication in the different learning contexts</p> | <ul style="list-style-type: none"> • Practice active listening, with attention, empathy and positive nonverbal communication, being aware of stimuli that may generate new connections and learning opportunities. • Ask assertive questions to make the coaches think about specific aspects of their work. • Give regular constructive feedback that contribute to the coaches' professional development and engage them in a continuous improvement search. |

EVALUATIVE PROCESSES IMPLEMENTATION

| | |
|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Master different evaluation strategies | <ul style="list-style-type: none">• Implement different strategies of collecting and interpreting the results that involve quantitative, qualitative and mixed methods.• Develop tools that enable to record and evaluate variables related to the knowledge and competences domain, presented by the coaches. |
| Implement evaluation processes in formal learning environments | <ul style="list-style-type: none">• Create evaluation processes adequate to the level of the coaches' experience and activity context.• Establish evaluation parameters according to the professional's knowledge/competence character.• Evaluate the quality of the teaching process, based on the learner centered teaching presuppositions. |
| Establish evaluation proceedings in practical environments | <ul style="list-style-type: none">• Create and use quantitative, qualitative and mixed tools to enable the evaluation of the competences domain, in simulated or real practice environments.• Evaluate the knowledge, abilities and competences domain, presented by the coaches through a systematic observation and training session notes. |

5.2

WOMEN/MEN COACH DEVELOPERS ROLES

The coach developers' intervention demands are distinct, depending on their activity context (club, national team, national federation), because they are related to specific requests to engage the coaches in their learning process. Among the main functions, the Facilitator, Mentor and Promoter of Social Learning Space are highlighted.

Facilitation

The comprehension of the adult learning process and the information access in the 21st century has changed the way of conducting coaches' development programs. The coach developers must assume a learning facilitator role instead of an instructor one, who has the knowledge to be transferred directly to the participants. This concept refers to the idea that participants have their individual motivation, knowledge and previous experiences, which may be used to support their learning in formal programs. Facilitators must engage the professionals through multiple strategies in knowledge sharing, problems resolutions and reflection in learner centered environments.

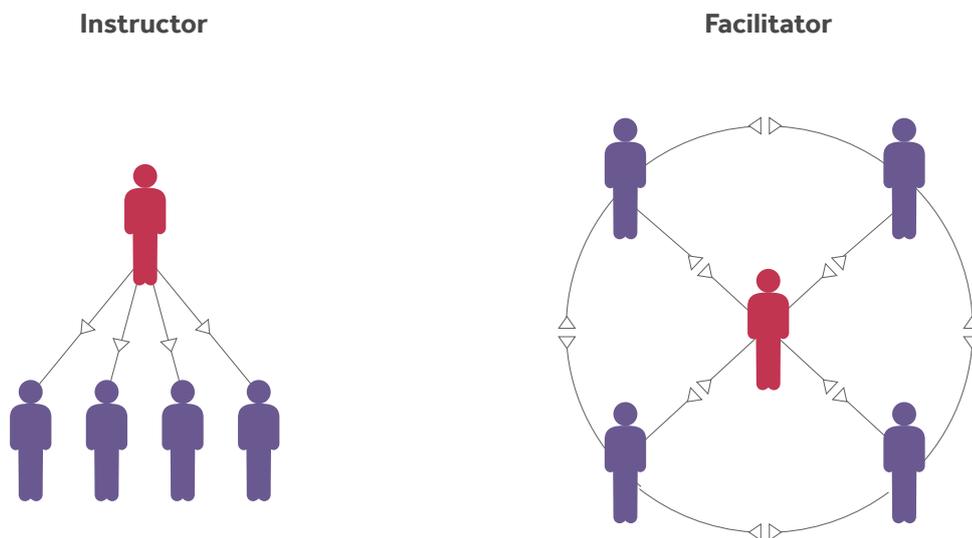


Figure 27 - Instructor-learner relationship in n coaches' development

Mentoring

This process is characterized by the individual support, like a learning assistant, from a more experienced person to a less experienced one. Despite mentoring occurring generally in informal contexts, the development programs have been using this practice with coach developers to enrich the coaches' learning at their own activity environment. It contributes to solving intervention dilemmas, reviewing beliefs, values and principles and strengthening their professional identities. So, mentoring involves a mutual confidence relationship between the mentor and the mentored, based on the knowledge, motivations, context characteristics and type of content, which define the kind of connection to be established. This relationship is within a support continuum (figure 28).

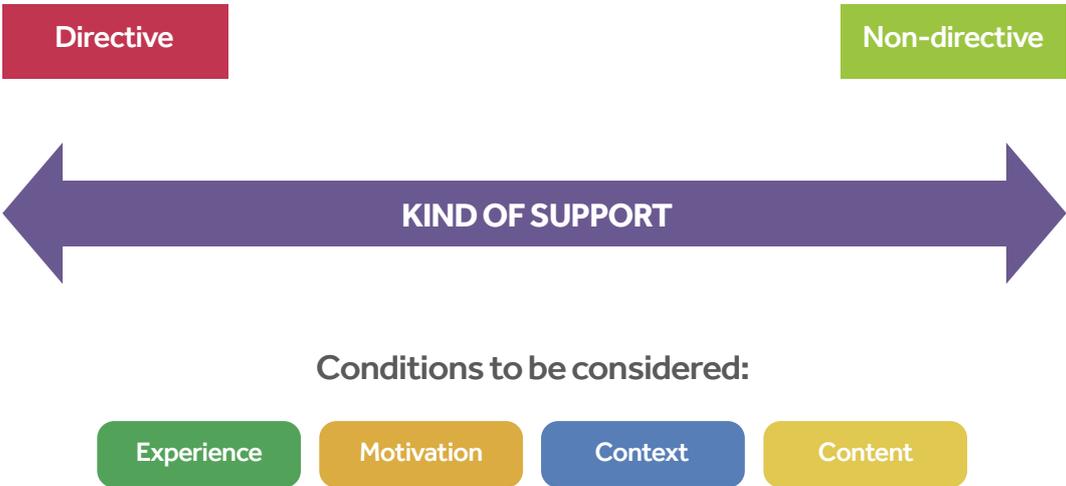


Figure 28 - Kind of mentoring support continuum

Mentors generally offer support to less experienced mentored, with simpler dilemmas to be solved. If considering more complex problems and more experienced mentored like the elite coaches, the kind of support is less directive, with both of them searching for joint solutions. It is important to highlight that, despite the mentor's social role of supporting coaches, the practice's reproduction or answers determination to the mentored must be avoided.

It is crucial that there be available women mentors to perform this role, creating a confident environment for learning in the specific case of women coaches. Therefore, the mentoring process may be known as a safe space for a collective reflection, stimulated by good questioning and knowledge co-creation, according to the emergent demands.

The meetings frequency and format, the themes for discussion and the mentor's experience are conditions to be determined according to the mentoring process objectives, as well as the coaches' development desired results. Examples of mentoring possibilities are detailed in chapter 6.

Establishment of Social Learning Spaces (ESA)

The ESA are learning environments that can be intentionally created and allow genuine interactions between the participants. They focus on problem solving or development of new intervention strategies. The ESA can be multidisciplinary team punctual meetings, systematized meetings of coaches, communities of practice development etc. There is not a pre-established format, so the coach developers must be able to strengthen a positive environment of sharing, in which the coaches and other professionals feel comfortable to share their vision, challenges and meaningful experiences about specific aspects of their practice. Therefore, the coach developers have to be aware of three key-principles to create ESA (table 30).

Table 30 - Key-principles of the social learning spaces

| | |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Understandable purpose</p> | <p>People who search for innovation and improvement of the environments they work at generally take part in the ESA. An understandable purpose enables a genuine engagement of the participants at the social space, even if they are involved in different levels.</p> |
| <p>Engagement in uncertainty</p> | <p>The ESA might enable the participants to get engaged in a safe journey, in which results are not always predictable. The coaches need to implement action plans and solve problems without a step by step structure or a systematized knowledge, when they search for innovation in their own practice many times. Thus, engaging in uncertainty can be understood as a gap between the intention to do something and the pathway to be followed, or the necessary knowledge and competences to accomplish it.</p> |
| <p>Attention to data</p> | <p>The ESA data can be understood as different character information. The act of paying attention can be expressed as: observe in an active way; practice empathetic listening; search for feedback; use scientific references. Being aware not only of the verbal communication, but also of the non-verbal one, enables the coaches to understand the messages from the ESA members and absorb their essence, direct or indirectly.</p> |

IT IS UP TO YOU NOW!

Check the hints below to select and train professionals that will work in your national federation development programs.

- ***Identify professionals with potential to perform this role.***

Systematically, select and prepare the professionals who will work as coach developers. In addition to the knowledge about the coaches' activity and the specific sports, these professionals must be experts in understanding and intervening in the adults learning process, demonstrating a genuine interest in contributing to other professionals' development.

- ***Provide the necessary conditions to develop their activity competences.***

The coach developers' work includes a set of competences described on table 29. If your national federation does not have conditions to contribute to this process at the moment, search for external professionals that present these competences and are able to provide the initial necessary support.

FOR MORE INFORMATION

Deepen your knowledge about the coach developers' functions through the references below: ICCE. (2014); PERKINS, P.; HAHN, A. (2020); JONES, R. L.; HARRIS, R.; MILES, A. (2009).

6

*EDUCATIONAL INITIATIVES FOR
WOMEN AND MEN COACHES'
PROFESSIONAL DEVELOPMENT*

The coaches' development programs promote the domain of different knowledge and competences for an effective and safe practice, to practitioners and athletes. Despite it being essential in all sports, the professional development process is not finished when the certification is acquired. The national federations may continually offer special professional development initiatives to support the coaches' contextual demands, throughout their learning journey.

The institutions' lifelong learning is a constant restructuring, deepening and expanding of organizational capacities. It searches for answers to external and internal changes, including new knowledge and competences, improving an even more sophisticated system, through reflection about their own actions and sport results. So, it is a way to guarantee better decisions and innovation in competitive environments.

Some organizational improvement proposals and formative initiatives to the coaches' professional development are presented next.

6.1

KNOWLEDGE MANAGEMENT AT NATIONAL FEDERATIONS

The sport national federations are potential Social Learning Spaces, which strengthen the coaches' development through the management of their knowledge background. The building, retention and knowledge sharing processes aim to systematize not only the conceptual body, organized and accumulated throughout the years and available at the institution, but also the tacit knowledge implicitly exchanged through practices, routines and procedures, which expresses their culture.

The national federations' knowledge background is generally very high because it comprises a set of experiences of the people who are or were part of the institution. However, this knowledge is sometimes not available for the institution, as it remains on the individual tacit domain of the professionals. As an example, the retirement of determined leaders or the foreign coaches discontinuity: when knowledge management processes are not established, it may lead to the sport weakening and to the national federation's dependency and fragility. It is essential to create internal mechanisms that enable the knowledge identification, systematization and sharing flow.

Figure 29 presents a holistic vision of the knowledge management system at the sport institutions.

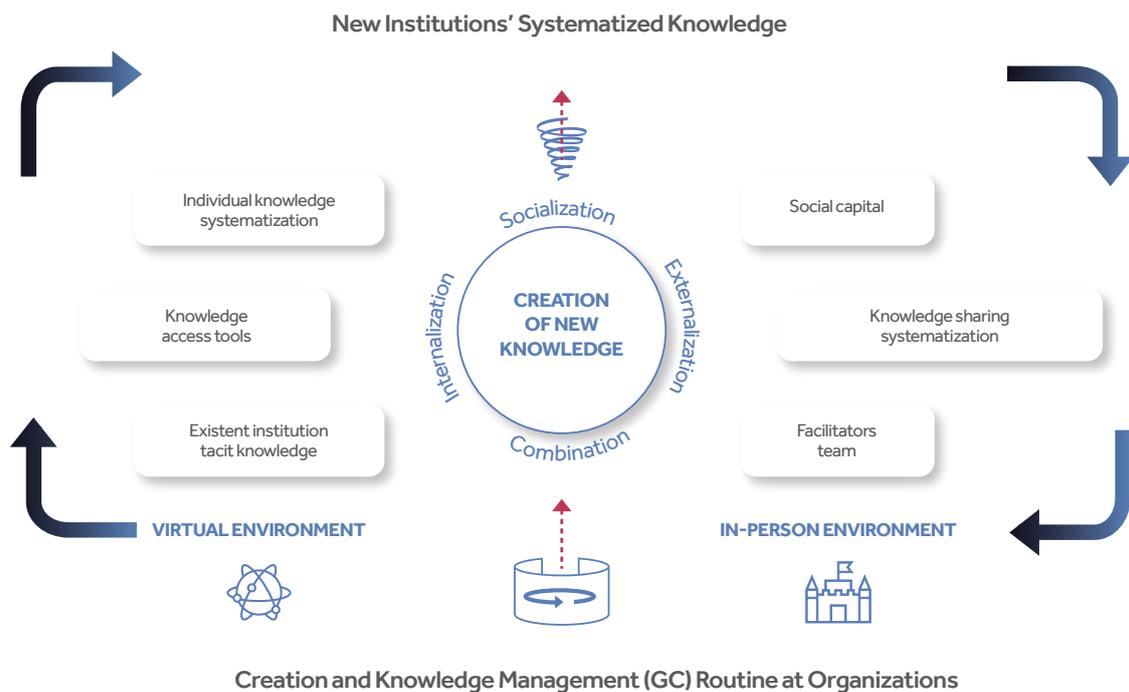


Figure 29 - Knowledge management system at the sport institutions

Knowledge management stages at the sport organizations

The starting point to the knowledge creation at the institutions generally happens through the **interaction** between their professionals. It is important to establish spaces and routines, in which different members of the organization can share information, experiences and practices in a safe way. Through this process, relevant non-systematized knowledge, which may be restricted to a person or small groups or even has been forgotten throughout the time, emerges and can be shared by a larger number of people.

After identifying the potential knowledge that optimizes the organization's work, the next step is to make them visible. This knowledge **externalization** process, through the systematization of what was tacit until that moment, may occur by several strategies. These actions can combine different tools for data collecting, like document analysis, interviews, practical observations, among others. Then, this information must be organized and systematized to be structurally shared. Therefore, the national federation can count on the development of institutional guiding documents, articles, audiovisual supporting material, personalized spreadsheets, among other strategies to make the knowledge available.

After accomplishing this step, the new knowledge needs to be connected to the set of the ones already existent at the organization (**combination**), before being shared with the members. This procedure aims to get an alignment of this content, as something to be added or even to substitute the current, but is no longer necessary or is outdated. Thus, the problems related to concepts, terminology and application guidelines misuse may be diminished.

The last stage of the cycle includes sharing the new knowledge so that it will become a national federation concept background, as well as of their individual members. The **internalization** of this knowledge can be done through teaching strategies and systematized sharing, like courses, workshops or even included in the professional routines by using specific tools and practices.

The knowledge development and sharing within the sport national federations must be a goal and a responsibility of all professionals. However, these institutions have to count on responsible people who know the cycle and are able to put it into practice, so it may occur in a continuous and systematic way. We present a case below that illustrates the knowledge management process at a sport institution.

CASE – FOREIGN WOMAN COACH

For the following Olympic cycle, the National Federation P hired the woman coach with the biggest number of international titles in the sport's history. In addition to the senior national team performance and results improvement, the strategy for hiring her was to use all of her expertise, developed throughout 16 years of working as foreign national teams coordinator (from young ages to professional) and as a coach of the main female team, creating a long-term athletes' development sustainable ecosystem.

Right after her arrival and adaptation, the coach invited all professionals who worked in court with the young ages national teams to follow and contribute to the female national team training. Every week, on Friday, she and the participants gathered together for a week's collective closing and a next cycle proposal presentation.

At the request of the national federation, two professionals from the Instruction Department followed the meetings and took notes about the main perceptions and their repercussions. It became evident, in the meetings, that a new attack system needed to be implemented at the beginning stages of the long-term development process, either to female or male teams, as closing the first semester of work.

After being approved by the coaching staff, the new system was included in the national framework. An online training was prepared to make this knowledge available to all clubs and coaches, composed by three meetings that presented: the new alignment; the advantages of implementing it even at the first stages; and how to work with it. The coaches received supportive messages, between the meetings at the platform, from the main names of the national sport, encouraging the use of the new system, inviting them to share videos with the applied training and their perceptions. At the end of the training, an institutional video was recorded by the new national team woman coach, presenting the five elements for an effective new system implementation.

IT IS UP TO YOU NOW!

Being able to raise some knowledge that is still tacit or split and limited to a small group of people can become a great competitive advantage, when referring to a context like the high-performance sport, in which the information access is restricted.

Making this content visible and accessible to all of the members must be one of the main national federations' objectives, which are committed to the individual and collective continuous improvement process. Thus, two essential issues must be considered:

- **Support the interactions:** the continual communication between the professionals is the key for the still invisible or non-systematized knowledge within the organizations. It may emerge and become known as a meaningful content that deserves all required effort to its systematization, externalization and internalization.
- **Keep a specific GC team:** without even a small group of people, formally responsible for the GC process, the knowledge can continue implicit at the organizations. Define responsible professionals and work with small groups. This strategy guarantees a greater autonomy and agility to accomplish all cycle stages.

6.2

WOMEN COACHES' DEVELOPMENT

One of the main barriers faced by women, throughout their journey as coaches, is the perception of the lack of competence and confidence, in addition to the professional devaluation. This condition makes them submit to an extent development process that values their competence and knowledge, thus not being questioned because of gender stereotypes.

However, the development courses are frequently thought and dominated by men, which designs a teaching process based on the association between sport, leadership and masculinity. It is common that the developers direct their language and examples to situations experienced by men. In their turn, the coaches get identified with these traditional patterns, which complicates the appearance of discussions that contest the sport gender constructions. The stereotyped gender beliefs and the developers and coaches' expectancies lead to the exclusion of women throughout their formal learning.

Some studies have shown that a meaningful number of women, who take part in the development courses, do not feel welcome in these environments, meeting an intimidating and uncomfortable atmosphere many times. A great number of women report that they do not express and show themselves so much because of a feeling that they are being judged, based on their gender identity. Harassments and pejorative comments related to the girls and women participation in sport are also frequent and results in their detachment. Therefore, it is understandable why many women choose not to continue or even to get involved in the formal education process of becoming a coach. These situations impact the women's intentions to move forward to leadership positions, besides reaching less opportunities to take part in development moments.

The courses that could empower the women coaches, establish relationships and strengthen their competence and confidence perception result in the reinforcement of insecurity and of challenges faced on the sport field. An alternative to diminish these embarrassments would be the implementation of course only for women, aiming to offer safe learning environments. The women coaches feel more comfortable to show their feelings and sensations with peers who experience the same difficulties.

The conduction of courses by women coach developers also contributes to the presentation of similar pathways, favoring a greater connection and experiences sharing. When the developers are men who are sensitive to gender issues in sport, fighting for equity and fostering debates about these pathway barriers and aids, the supportive network gets strengthened, the women feel even

more valued and secure about their work competences. So, these courses involve the sport's traditional patterns contents, but also have the objective to empower women coaches to deal with stressful situations experienced in the sport environment, which goes beyond the woman coach-athlete relationship.

WOMEN COURSES OBJECTIVES

- Develop knowledge and competences to work as a coach.
- Develop confidence to perform the coach role.
- Develop the self-regulation capacity to manage personal well-being.
- Develop the self-regulation capacity to manage external environments.
- Stimulate the long-term relationship with other women coaches in sport.
- Stimulate the contact with other leaders in sport, encourage more women coaches and women in leadership posts.

Some specific characteristics of these courses are well known, despite being recent initiatives. Carrying out activities with a reduced number of participants, for instance, fosters the engagement and interaction between them. Developing a belonging feeling is also essential to empower the women coaches, which makes them more confident about their professional work. The identification between the women coach developers with leaders working in sport reinforces that it is a possible pathway to be followed. Finally, discussions of the gender constructions in sport enable us to think about the cultural challenges faced by the women coaches and their important role in changing sport.

CASE – COURSE FOR WOMEN

Maria took part in several development courses throughout her career as a coach. In almost all of them, there was a majority male participation, either in the organization or in the audience. The simple presence of a woman coach in the development environments caused her mates and men coach developers surprise, distrust and discomfort reactions. At first, the men's estrangement behavior bothered her, but not enough to make her quit. Facing this situation, she participated in the course under a kind of pressure, feeling like a stranger, not very acknowledged by her peers and superficially welcomed by the men coach developers, despite her experience in the sport area. Thus, she performed a supporting role within the course, chose peripheral places to stay in the activities and did not express her points of view, even about subjects she was considered a specialist.

Being aware of this situation and committed to a whole participation of women in development courses, the national federation chose to offer a course only for women coaches. The first action was to review the charged prices. Because of the wage differences between men and women coaches, they chose more accessible values, including integral incentive pays offer. The institution invited two women coach developers to guide the course: one of them was recognized from her pathway of fighting for gender equity in sport, and the other one for the knowledge background about adults learning and her experience with coaches' development courses. The course was planned from two objectives: (1) know and discuss the barriers and strategies to enable the access and permanence of women coaches in sport; and (2) develop planning, conduction and evaluation competences of the training.

The course started with a welcome activity. After the general guidelines about its purpose, the developers organized the women coaches in small groups, so they could present themselves and share their expectations about the course. Then, there was a presentation, named "Barriers to the access and permanence of women coaches in sport", in which one specialist talked about recent research with the obstacles faced by sport women coaches, as well as the strategies that have been used to support their professional development. Later, the coaches were organized in groups with the objective to register the main barriers faced at their daily work, besides indicating how each coach dealt with that. As a consequence of this activity, the coach developers suggested the creation of supportive thematic groups, seeking the confrontation of specific barriers. The women coaches would be able to gather together and carry out regular meetings to share experiences and produce strategies to diminish or even extinguish some of these difficulties.

Regarding the second course objective, the developers invited a woman coach to share her training plan, conduction and evaluation routine. The purpose was to emphasize the training didactical-pedagogical dimension. After the presentation, the women coaches had the opportunity to watch one of this coach's training sessions. Each one of them received a training analysis tool, in which highlighted aspects were described, intending to guide the coaches' attention to some specific behavior of that professional. The coaches were also stimulated to make notes about their doubts, which were answered after the training. At the end, they could plan a training session under the developers supervision and then conduct and evaluate a specific moment of their planning.

Maria experienced a favorable environment to assume a protagonist role in her learning throughout the course, feeling comfortable to talk about her challenges as a coach and other embarrassing situations she went through for being a woman in a masculinized sport environment. Moreover, she heard the other coaches' reports with similar challenges and could identify the possibility of ascending in the career, from the examples and the elite women coaches' biographies in sport leadership positions. This experience made Maria feel welcomed, comfortable and motivated to continue her professional development and to stimulate other women coaches to get involved and progress in sport.

Based on this example, specific initiatives for the women coach development can support and accelerate the gender equity process in sport. Thus, the national federations may explore activities in courses for women, from strategies like:

- Carry out practical activities to develop the women coaches' competences.
- Stimulate the opportunities of social learning.
- Develop collective activities with more and less experienced women coaches.

- Encourage the experience sharing, the co-creation of knowledge related to sport and learning in group, counting on the participation of women coaches acknowledged by their experience, competence and/or professional success.
- Promote the women coaches experience exchange related to the barriers faced in sport and the strategies to defeat them.
- Create a platform to exchange knowledge and scientific events including the women coaches theme in sport.
- Stimulate the reflection and evaluation of the women program activities, thinking about new collective strategies.

IT IS UP TO YOU NOW!

Analyze if your national federation has some of these strategies to expand and stimulate the women coaches' development: which one of them are being used? How can they be better? Which strategies are not used and how can they be implemented? Understand this outlook and establish the actions that answer best to your institution and sport.

It is imperative that the sport organizations stimulate and support the development of courses directed to women coaches and conducted mainly by women, to achieve the permanence, progress and increasing of the women coaches number in the sport area.

FOR MORE INFORMATION

An example of a specific initiative with programs for women was held in Alberta Province, in Canada, called The Alberta Women in Sport Leadership Impact Program – AwiSL. More information about the program can be found in the following references: CULVER, D. M.; KRAFT, E.; DIN, C.; CAYER, I. (2019); KRAFT, E.; CULVER, D. M.; DIN, C. (2020).

6.3

ELITE WOMEN/MEN COACHES' DEVELOPMENT

Elite coaches are responsible for leading senior athletes, professional or national teams, younger ages and adults, thus working in an environment of sport excellency. Seeking for the best results demands specific knowledge and competences about the factors that influence the high competitiveness in sport. This condition determines that coaches keep themselves in constant learning process, constructing new ways of their performance and innovating their own practice.

It is evident that the conventional certification programs are not able to answer such particular demands of elite coaches and, many times, they result in tracking a lonely development pathway. Therefore, it is fundamental that individualized programs may be offered to support these professionals, considering the coaches' knowledge identification, previous competences and experiences, their work context requests and the environment conditions to produce new knowledge.

By this way, the learning process occurs from the mapping of the coaches' learning needs. Being successful on this development proposal requires the participation of an experienced developer, elite coaches involved by their own desire, as well as the sport organization managers comprehension and support. Thus, some conditions are essential to develop appropriate learning strategies.

Defining the responsible coach developer

The developer who offers conditions to elite coaches' individual development must know the specific sport, count on a mentoring process and supportive material background and domain tools to identify knowledge and competences, then design and implement learning plans. So, developers and elite coaches are on the same cooperation level, seeking to co-create knowledge.

Context identification and learning needs

It is necessary to explore the knowledge that coaches already have to understand their learning needs. The coaches' knowledge (professional, interpersonal and intrapersonal) is, generally, based on the acquired experiences throughout their career, in different contexts, constituting a tacit knowledge. Thus, the first step of the learning plans development process is to identify the elite coaches' implicit knowledge. One of these step possibilities is to use conceptual maps, making

explicit what is linked to their philosophy and practices. The construction of conceptual maps requires meetings with the developers and the coaches, in which interview techniques and reflection strategies are used, like diaries, aiming to obtain consistent information.

Creating individual learning plans

After finishing the conceptual map, it is necessary to gather everyone involved in the process (developers, coaches, managers) to explore the professionals' knowledge and identify gaps to be filled. The group will collectively select the ways of work to support coaches in developing the identified aspects, as well as offering a mutual stimulation to their own professional practice innovation. It is highlighted that the personalized learning plan cannot be understood as a content list that the coaches must learn or do. Instead, it has to be comprehended like an important tool that can be used to favor the whole sport organization.

Development of learning activities

Among the strategies that can be used in the process, the specialists and more competent coaches' support, meetings with other sport coaches, workshops in similar areas and benchmarking actions are highlighted. The developers' role will be to create a Learning Social Space (see Chapter 3), in which coaches and other participants feel safe and interested in expressing themselves. The pedagogical challenge of the learning plans is to create a continuous engagement atmosphere. It helps the organization members in developing a collective and critical practice through the identification, communication and manipulation of the contradictions found throughout the meetings.

Learning process evaluation

The elite coaches' evaluative process must contribute to the development of the involved professionals, which goes beyond an approval on a test for some certification. The use of reflective portfolios, in this case, seems to be an excellent tool to evaluate the achieved results. The coaches think about their learning journey in each developed topic, describing the way they arrived in the program, the current status and their work routine implications. Then, it will be possible to evaluate the interventions range, identifying the challenges that still need to be defeated, the knowledge and competences that demands deepening. Interviews and systematic observations can also be used as effective strategies to identify new knowledge implementation and behavior changes in real work situations.

We will present a fictional case to illustrate the application of these elements to an elite woman coach development, based on the dimensions previously described to design, apply and evaluate the learning plans.

CASE – WORKING WITH AN ELITE WOMAN COACH

The coach developer Marcelo was invited by the National Federation E to contribute to Sofia's development, the elite woman coach who will be leading the male national team on the following Olympic cycle. After briefly getting to know each other at the institution headquarter, Marcelo scheduled a meeting with Sofia, informing that he would contact her by email at the beginning of the week. He would share a brief script with a proposal of a timeline about her pathway, since the moment she got to know the sport until today, including her main potentialities, so he would be able to know a little more about her before the formal meeting.

As agreed, two days before the meeting, Sofia returned the email reporting that the biggest challenge was to highlight, in a few lines, the milestones of her journey and to talk about herself. Along the in- person meeting, Marcelo explored the main points he had observed on the timeline. The fact of being the only girl to practice that sport in her city, always training with boys, was underlined to be one of the keys for her success as a woman coach in a male sport, where she felt free to express herself. Marcelo gave a new task to Sofia to be held in court, which would be delivered before the following meeting. She would have to send a video presenting the way she planned the training process, the ideal scenario she imagined for her professional future and what she would need to develop to achieve it.

Marcelo and Sofia talked a little before the training session began, and he could understand better the challenges she faced, which became evident throughout the session. He also identified difficulty in structuring and implementing more receptive and representative tasks. At the end of the training, they talked about what Marcelo had seen, and he presented small videos recorded during the session that illustrated very well what they talked about and observed.

Marcelo started the following meeting asking Sofia to list and justify five topics she would like to have her knowledge deepened along the season, based on everything they had thought about together, in the last weeks. She did it and he promptly agreed. However, he saw that the theme Representative tasks implementation was in the fifth position. Regarding what was discussed in the previous sessions, he asked Sofia about the priorities sequence, considering that the communication with athletes, one of Sofia's strengths, was on the second position. She recognized that the theme needed a greater importance, and both of them defined which would be the desired successful criteria for each one of the five topics. The meeting ended with Marcelo and Sofia presenting to the Development and Selections' Managers the list and the three first themes that would be developed along the program.

After four sessions discussing the principles to create and implement representative tasks, and guiding Sofia to include new routines in the training, Marcelo received a call from her, asking if they could talk in the morning of the following day. At the meeting, she said she was having much difficulty dealing with the demands outside the court. Coming to the national team made her communicate to new agents, which was new and made her apprehensive to continue the work. Marcelo said that the female national team coach was at that post for a long time and could help them on that demand, after some questions and considerations about that theme.

The initiative was efficient, and the strategies shared by the coach diminished the communication noises. It enabled her to return to the initial learning plan, which was integrally accomplished through the biweekly meetings along the season. At the end of eight months, Sofia was invited to share her journey, underlining her status in the beginning, the expectations and her competence perception about the developed themes.

Sofia also highlighted some issues that were essential to the program's success. The first one referred to the confidence relationship established with the coach developer: "Without the receptiveness and confidence developed with Marcelo, I would have never been able to express my fragilities, which would hinder my progress". Another strength she pointed out was the strategy used by the developer after each meeting, when he sent a summary of what was discussed, the following steps and the deadlines for the tasks. "[...] the materials sent by Marcelo, after our meetings, made me focus on the pathway to be tracked. We have several responsibilities day by day and these summaries were an easy way to be on the same page, without feeling lost in between the meetings [...]"

With Sofia's permission, Marcelo forwarded a detailed report to the national federation managers, referring to the work plan developed throughout the term. He also included small fragments shared by Sofia on the reflective portfolio, illustrating her learning journey and the perceptions about the strategies used in the process.

FOR MORE INFORMATION

Some studies that discuss the elite coaches' development are on the following references: MILISTETD, M.; PENIZA, L.; TRUDEL, P.; PAQUETTE, K. (2018); RODRIGUE, F.; TRUDEL, P.; BOYD, J. (2019); RODRIGUES, H.; GARCIA FILHO, H.; WOODBURN, A.; CUNDARI, G. (2020).

6.4

EX-ATHLETES SUPPORT IN BECOMING WOMEN/MEN COACHES

The elite athlete experience emerges as a valuable learning source, possibly becoming a differential in the coach's career. The years of engagement with the specific sport culture, the experiences in different competition contexts, the language domain and the "locker-room" environment are factors that can accelerate the career transition process from ex-elite athletes to coaches.

The elite athlete's socialization is connected to the development of a set of knowledge and competences, added to their legitimacy in the sport context, which generates a belonging sense and authority among their peers, specially those who achieved expressive results, and that the conventional certification programs hardly offer in a representative way. They are: the emotions management facing competitive pressure; effective communication with the press and social media; the relationship and leadership establishment throughout long trip terms; pre and post games routines, among others. The figure 30 presents some of the benefits resulting from socialization as an elite athlete, indicated in literature.



Figure 30 - Learning and development opportunities resulting from the experience as an elite athlete (adapted from Rynne, 2014)

Despite the advantages of having been an athlete, this experience does not guarantee the effectiveness in the new role, considering the transition to a coach. Formative processes are required because of the specific demands of the new function. The knowledge and competences domain related to the people management, leadership, training and competition planning, conduction and evaluation must be developed. A high reflective capacity is also constantly required in the new environment.

In different countries, the career transition from athlete to coach happens naturally. The professionals start to assume the new role shortly after they stop performing, without a formal preparation period. This occurs mainly because of the lack of a professional qualification exigency or certification courses accomplishment. On the other hand, in countries where the certification programs are consolidated, special development conditions have been created for this group, intending to accelerate its transition process. This shortened development has been called fast-tracking.

In Brazil, the current law requires that the professional activity as a woman/man coach occurs after the graduation in Physical Education/Sport Sciences. This characteristic can be seen as an obstacle for some people, but, if well planned, it can also represent a powerful learning and professional development opportunity for future coaches. In the next sessions, two basic pathways will be presented, which ex-athletes can go through when making the transition to the coaching career.

Optimized conventional track

The optimized conventional track is an adequate option for those athletes who are certain of their decision to become coaches, using the last years of their athletes' career to start the professional transition process.

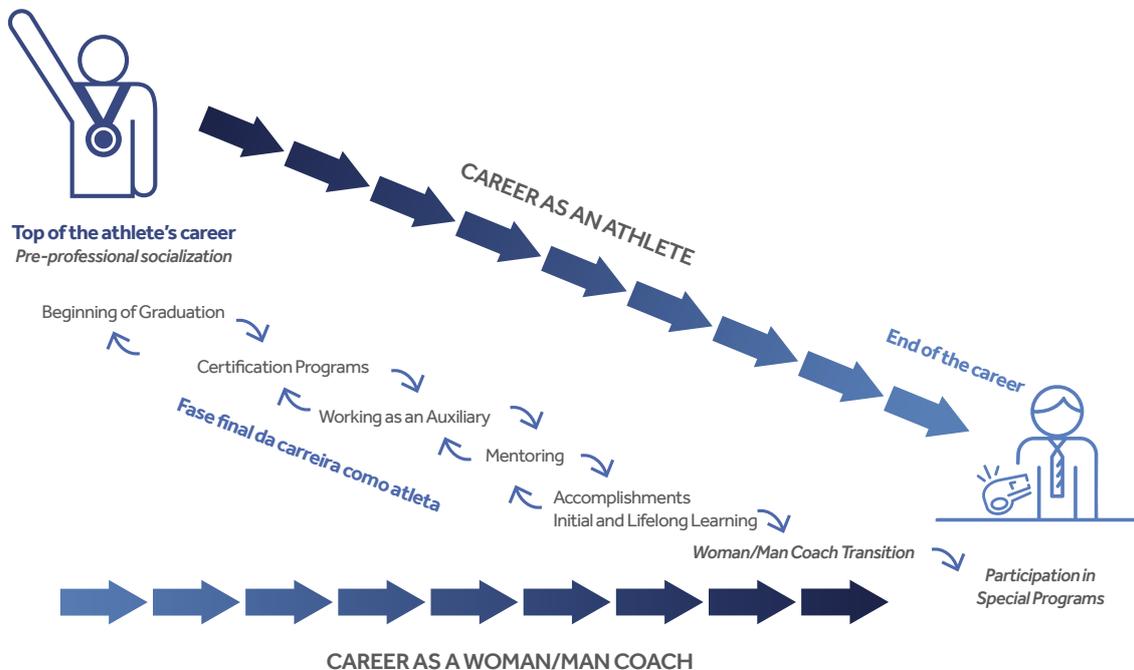


Figure 31 - Development and preparation to the career transition throughout the sport journey as an elite athlete

It is noted that the transition to the new career gradually occurs, without the necessity to accelerate or jump important stages of the development process and without an urgency to achieve results or financial return, which enables the future professionals to better explore their journey.

The experience as an athlete can become an important source of learning, as well as the opportunities experienced as a coach in the first stages, performing different roles and positions in sport, which may strengthen the development process, making the transition more pleasant and assertive.

According to figure 31, the first step on this journey is to join a bachelor's degree in Physical Education or Sport Sciences. Considering the context characteristics in which the athletes are, the participation in EAD (long-distance learning) format courses or hybrid may facilitate the accomplishment of the stage, once the training routine is exigent and there is a frequent absence because of the trips to compete. Along with the initial development, coaches must take part in certification programs from their respective national federations, considering the necessary prerequisites.

The specific professional knowledge developed in these actions, added to previous experiences, will enable coaches to start working as Auxiliaries, contributing with training and competitions in young ages and other contexts. This professional experience will create a positive surrounding in which coaches face the career daily challenges. Thus, it is suggested that they begin to receive formal mentoring from experienced professionals, helping them to individualize the development journey.

After finishing the initial learning, added to the acquired experiences as an athlete and Auxiliary, the “recently retired athletes” will be able to assume the new role, start working as Assistant Coaches, Coaches or even Technical Coordinators. This moment of the career is, generally, associated with the entry on a new JADT stage, expressed by the transition to more active self-development strategies. The participation in formative initiatives, like in elite coaches development, is one of the available and adequate strategies for the process continuity, which offers a more specific and contextualized support to the faced challenges, in a new activity field.

Accelerated track

Unlike the optimized track, the accelerated one begins only after the complete closing of the athlete’s career, either for an indecision about the professional future or for the incompatibility to manage the required demands. This approach calls for an individualized process of knowledge and current competences gap analysis, answering to the necessity of accelerating the development. Thus, what is expected from the professionals is defined and the priorities are established, from the observed differences between the ideal and the actual scenario. The process is called gap analysis.

Several strategies can be used to collect the necessary information for this analysis, like interviews, a systematic observation of the coaches in activity, as well as the conceptual map designs (figure 32).

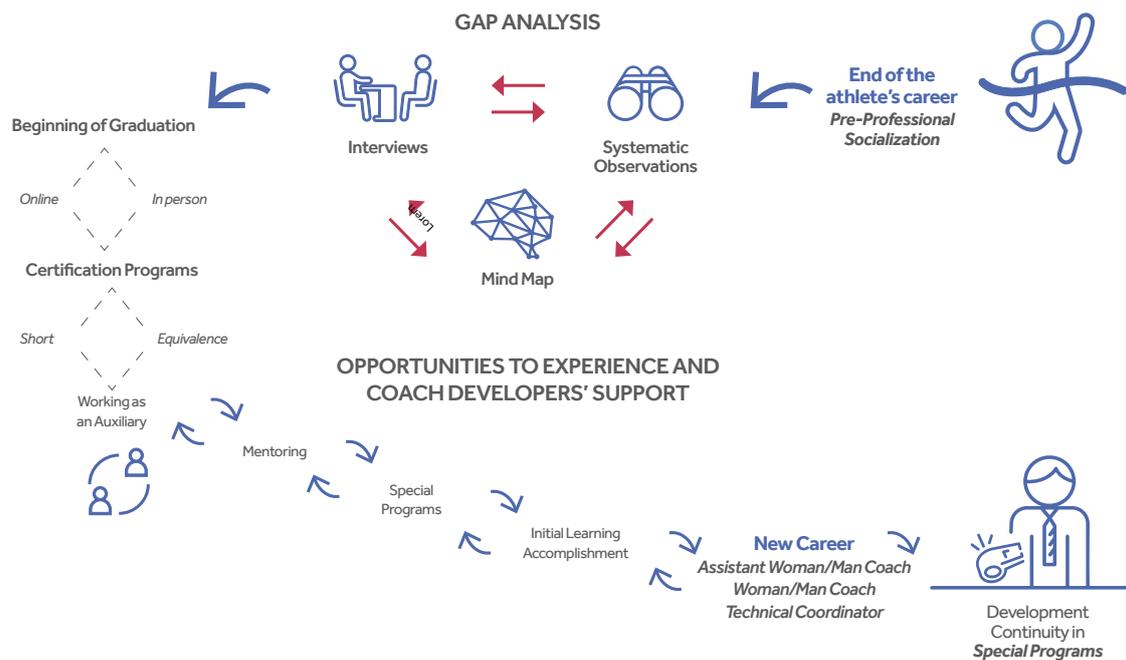


Figure 32 - Accelerated track to ex-athletes' development into coaches

The coaches must be registered in a Physical Education/Sport Sciences Bachelor's course, once it is a prerequisite to legally work in Brazil, independently of the attention points detected on the gap analysis. Considering the necessity to accelerate their preparation, the option for an EAD or hybrid format can be an advantage, which allows the dedication of time to their development, even being busy because of trips to competitions, traineeship, visits to centers, among others.

Based on the initial evaluation information, the sport national federations can offer the professional development individual program, which will be simultaneous to the graduation course. Responsible coach developers must design the learning journey of these professionals (see elite coaches' development), enabling them to shorten the pathway to get the certification and/or personalize the route to obtain it by equivalence.

This combination of learning opportunities will enable them to develop what is specifically necessary for the context they will work in. The end of the journey is similar to the one described on the Optimized Conventional Track, marked by the official transition to a coach's career and the continuity in certification programs or in formative initiatives, offered by their respective national federation.

CASE – ACCELERATED TRANSITION

Pedro ended his athletic career with a great acknowledgement in his sport, as an Olympic medalist and world champion. Because of the uncertainty about his professional future, he decided to follow his mates' training and the young ages in his club. He registered on the Physical Education course, in the following year, and he was invited to work as an auxiliary by his national federation, supporting the junior age group responsible coach. When noticing Pedro's interest and contribution potential in the national team, the technical coordinator and the responsible coach developer met him to present the possibility of building the Learning Accelerated Track. Facing the technical and tactical domain, the leadership and the environment critical analysis he presented, they defined a proposal that the future coach would accomplish the certification level 1 in the first year, counting on a mentoring support to develop specific training pedagogical competencies. In the second year, Pedro would carry out the certification level 2, counting on the mentor's support for planning, periodization, training and competitions evaluation. In the third year, he would travel to the Junior Pan American Games as the national team chief, to keep up with the preparation for an international competition and the creation of victory environments. In the fourth year, he would be making his course final monograph and the traineeships inside training centers, getting along with senior national teams until the end of his graduation.

IT IS UP TO YOU NOW!

Check the hints below and establish the ideal track, in an individualized way, for the athletes in the career transition stage.

- **Strengthen the learnings resulting from the experience as an elite athlete:** the elite athlete experiences enable the future women/men coaches to access several learning sources, which may strengthen their professional activity. We highlight the supportive network, the opportunities to experience leadership roles under pressure, interactions with different agents and successful professionals and informal learnings from the routines, among them. Identify the coaches' strengths and previous experiences and use the career transition moment to optimize their development.
- **Be coherent when choosing the journey:** the shortest pathway is not always the most adequate. Analyze in detail the conditions presented by the coaches in transition, the pros and cons of each learning journey, before choosing for the Optimized or Accelerated Conventional Track.
- **Count on the professional support who know the women/men coaches' development specificities:** professionals from your national federation or from another reference, who are able to make the gap analysis and design the long-term development planning of the coaches' career with the accelerated journey.
- **Supporting network:** stimulate the contact of athletes and coaches who are in the transition stage with a diversified and qualified supportive network, so they can learn, exchange experiences and identify themselves.

6.5

BENCHMARKING AND LEARNINGS BASED ON TRIPS

The supporting pillars of the sport's success are internationally acknowledged, leading different countries to promote very similar athletes and coaches' development systems, according to the local characteristics. These systems are constantly improved through the evolution of technical-scientific knowledge and their own organizational progress. It enriches the national federation performance, which can shorten the pathway towards titles and medals. Regarding the permanent search for the sport organizations improvement, benchmarking has become more and more present in the sport federations and national federations context, being also implemented in coaching staff and coaches enhancement.

KEY-CONCEPT

Benchmarking is related to an identification, comprehension and transference process of the best practices, from an organization to another, thus enriching its performance.

When analyzing what makes a competitor organization's performance superior, it is possible to understand their own current status and then implement innovations in the action strategies. It is essential to perceive that benchmarking is not a copy of what has been carried out, but a reflection opportunity about different processes, innovating the context reality.

The definition of innovation is related to introducing new ideas that can improve the products and/or the service provision quality. Thinking about sport coaches, the innovation is connected to the use of new strategies that qualifies their practice and increase their athletes and coaching staff performance. Some of these strategies are: reviewing the own work philosophy; the usage of new training and competition pedagogical processes; the team management qualification; the new evaluation strategies acknowledgement; the increment of the performance analysis through the use of software; the deliberate reflection accomplishment; among others.

One of the main conditions to innovate is the capacity of seeing the same situation through "different lenses" or "to think outside the box". However, an insight or a punctual idea alone does not guarantee that it is applicable and coherent to the activity context. It is fundamental that the planning, development and implementation processes be aligned, assuring to the professionals

that they can try new routines and evaluate the achieved results. These stages characterize the benchmarking process, which must be thoroughly planned, as presented on table 31.

Table 31 - Benchmarking process stages

| DIMENSION | STAGE |
|----------------|-----------------------------------------------------------------------------|
| Planning | Determine target activities. |
| | Determine factors to be evaluated. |
| | Determine organizations with superior performance. |
| Development | Self-performance evaluation. |
| | Develop the action plan for the target area. |
| Implementation | Establish a commitment with the involved people to implement new practices. |
| | Implement the action plan and monitor the results. |
| | Implementar el plan de acción y monitorear los resultados. |

Source: adapted from Boxwell (1996)

Another possibility commonly used to stimulate innovation with sports coaches is the use of learning trips. The **learning based on trips** consists in applying the different benchmarking steps in international competitive events, mega-events, visits to high-performance organizations, among others. At this kind of learning opportunity, it is important to consider the complexity of the coaches' activity, the multifactorial conditions of the sport performance and the objectives to be achieved in the experience planning.

One of the most common mistakes about the learning based on trips is to assume that the experience itself guarantees conscious learning, like an international competitive trip. It is crucial that the coaches focus on the content of the experience to be learned, not only on the processes of the athletes' improvement. They are stimulated to think, discuss and reflect about the knowledge expansion that the opportunity offers, thus focusing on their professional development process. So, the coach developer is essential to lead a benchmarking or learning based on trips process, strengthening the participants experiences through a continuous engagement and the action plans design, contextualized to each coach's reality. Here are two examples to illustrate the learning potential through benchmarking and trips.

CASE 1 – BENCHMARKING IN DIFFERENT SPORTS

The National Federation B was developing a software to monitor young ages national team athletes at their clubs, from all regions of the country. The evaluation should determine the development of physical, technical, tactical and psychosocial dimensions, the participation in competitions and the performance in games throughout the season. While talking to the COB support team, the young ages national teams' coordinator found that the National Federation C was also developing a prototype to monitor their athletes in national and international competitions. Then, a week of visits and meetings between the coordinators and managers from both national federations was carried out, so they could exchange information and verify the National Federation C prototype potential. In addition to the sports technical knowledge sharing, indicators parametrization and coaches' filling routine at their clubs, the National Federation B coordinator got information from the IT Technician group, responsible for the software development. Even with distinct sports, it was possible to gather important information to develop an action plan for implementing the athletes' monitoring, from the National Federation B. This plan involved: fundraising and expenses with the IT group to develop the prototype; meetings with the coaches of all national teams and the athletes' clubs to present the project and understand the importance of an athletes monitoring platform; explanation to the athletes and the coaches about their active engagement in feeding the database. After establishing the commitment with the managers, IT group, coordinators, coaches and athletes, the pilot-project of creating and implementing the monitoring software was launched.

CASE 2 – TRANSITION OF THE NATIONAL TEAM COACHES NEW GENERATION

The National Federation S, on its strategic plan, established to achieve the medals record as a goal, at the Los Angeles Games in 2028. Considering the middle-term factors that are involved in this goal accomplishment, the preparation of the coaches who will assume the teams was defined, once the current coaching staff had already informed them that they would retire after the Olympic Games in Paris. So, the junior national team coaching staff would be responsible for the senior team at the end of 2024. Among the designated goals on the strategic plan, two preparation trips were settled for the coaching staff, the 2023 World Games and the Olympic Games in 2024. Some of the indicators in both trips were the context analysis, the athletes and coaches' emotional control, the crisis management and the victory culture development. Considering the character of the themes, two coach developers were invited to guide the learning experience with four coaches of the future coaching staff: a specialist in coaches' learning and in intrapersonal knowledge and a senior national team ex-coach, famous for relational competences. Two weeks before the trips, the coaches should write down their perceptions about the themes and send materials they considered interesting to share with their mates. The coach developers also sent videos, books chapters and scientific articles synthesis. They carried out two virtual meetings to discuss the themes. A few days before the trips, the coaches were encouraged to write about their expectations and what they sought to learn even more. This task aimed to draw the learning and best results guidelines, when following the training and competitions. The coach developers and coaches defined a set of criteria to be observed and discussed throughout the trips. There were periodic meetings, as well as moments of discussions with the current coaching staff, including a collective thinking about the decision making of the aspects related to the target themes. The coach developers asked each coach for the action and the individual learning plans, so they would continue their improvement up to the assumption of the main team, based on the achieved results through the indicators previously defined, the discussions and collective learning along the trips. Regarding the designed plan, the coaches defined that they would send a monthly report of the experiences and learning at their current contexts, maintaining the coach developers and coaching staff dialogue.

FOR MORE INFORMATION

Check other references to deepen your knowledge in benchmarking and learning based on trips processes: BOHLKE, N.; ROBINSON, L. (2009); CULVER, D.; HOLDER, D.; RYNNE, S. (2020); NORTH, J. (2020).

6.6

LEARNING EVALUATION ON PROFESSIONAL DEVELOPMENT INITIATIVES

This document's Chapter 3 presents a set of concepts that express the multidimensionality of sport coaches' activity, which demands a work philosophy, as well as the domain of distinct knowledge and competences. By this way, they reach their practice effectiveness, built from the several opportunities they have had throughout the coaches' learning and development journey (JADT). So, considering the learning as a complex process, especially "individual", is essential to evaluate the impact of coaches' development programs and understand the meaning that these professionals attribute to these initiatives.

The value of the coaches' experiences is what enables the addition of a new knowledge, change a behavior or even comprehend their own professional identity evolution, in the search of becoming a more competent and innovative coach. Thus, the "valued" status is directly related to the national federations' efficiency in providing development opportunities to the coaches and to the impact of these initiatives in the professionals' activity.

Based on this context, we present a learning evaluation structure, which includes a set of indicators designed to different values creation levels. They are relevant to identify and monitor the learning process, considering the own professionals' perception regarding their formative expectations. The concept of "value creation" refers to the coaches' understanding about their own participation in special programs of professional development.

The level of created values that the tool presents to comprehend the coaches' learning are: Immediate, Potential, Applied, Accomplished and Transformed Values. Table 32 describes the kind of created values, their indicators and the learning components of each one of them.

Table 32 - Created values and women/men coaches learning components

| CREATED VALUE | LEARNING COMPONENT | VALUE INDICATORS CREATED BY THE WOMEN/MEN COACHES |
|-----------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Immediate</p> <p>Activities and interactions that can result in innovative ideas and perspectives</p> | Cognitive | <ul style="list-style-type: none"> • Recognize other possibilities, visions and work philosophies (coaches' exposure to other contexts and working points of view). • Find different generation professionals (more and less experienced coaches). • Productive cognitive "discomfort" resulting from the experiences exchanging between these coaches. • Identify learning and development partners to cooperate in searching for innovative approaches and solve the professional activity challenges. |
| | Socioemotional | <ul style="list-style-type: none"> • Inclusion and belonging sense (fellowship feeling for the other coaches, valuing their participation). • Involvement with coaches and/or professionals specialized in an area that is important for their activity. • Association and satisfaction in relating with other profession mates. |
| <p>Potential</p> <p>Different kinds of capital: human, social and learning</p> | Cognitive | <ul style="list-style-type: none"> • Acquired knowledge and competences that increase the coaches' capacity of establishing personal connections, as well as understanding their role and the other professionals' who are part of their activity context. • Acquired elements (access to videos, archives, histories, symbols produced and shared by the coaches, like personalized documents and tools). |
| | Cognitive and socioemotional | <ul style="list-style-type: none"> • Opportunity to establish a "common field" between the coaches, fostering affinities that may guide them to future working cooperation and professional development. • Real help with specific challenges, innovation, others experience, critics and new information. |

| CREATED VALUE | LEARNING COMPONENT | VALUE INDICATORS CREATED BY THE WOMEN/MEN COACHES |
|--------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applied Adaptation and application in different contexts | Practical/behavioral and socioemotional | <ul style="list-style-type: none"> • Confidently speak with different agents of their activity context. • Make use of the connections, cooperating with the projects/initiatives participants (teamwork). • Strengthen their influence in the professional activity context. |
| | Practical/behavioral and cognitive | <ul style="list-style-type: none"> • Be more assertive in their actions. • Search for actions and perspectives alignment for common results (coaching staff, team, athletes, sport institution). |
| | Practical/behavioral | <ul style="list-style-type: none"> • Reuse and adapt patterns, procedures and documents as an innovation source of their professional activity. |
| Accomplished Identify the results from applying the acquired knowledge | Socioemotional | <ul style="list-style-type: none"> • Personal satisfaction for being part of a group of professionals who share knowledge, competences, values and goals. |
| | Practical/behavioral | <ul style="list-style-type: none"> • Other people and professionals are benefited by the value that the coaches created, to achieve the goals and objectives. |
| | Socioemotional, cognitive and practical | <ul style="list-style-type: none"> • Influence and inspire other people and professionals who are part of their working context. |
| Transformed Reconsideration of the learning ways and the criteria that define success. | Socioemotional | <ul style="list-style-type: none"> • Develop new identities, values, visions, personal and professional perspectives. |
| | Socioemotional and cognitive | <ul style="list-style-type: none"> • Redefine what "success" is (as a coach, athlete and the sport institution). • (Re)signify their objectives and goals. • Change the mindset about their responsibilities and working possibilities in their activity environment. |
| | Practical/behavioral | <ul style="list-style-type: none"> • Create performance criteria that indicate their new success definition, for themselves as a coach, for their athletes, the team and the sport institution where they work. |

Source: Adapted from Wenger et al. (2011)

According to table 32, it is possible to understand that the different Created Values are interconnected and progressive, in terms of the learning levels achieved by the coaches. However, it is highlighted that not every learning opportunity can or may take the coaches to reach deeper levels of apprenticeship (Accomplished and Transformed Values).

The experience acquired on the offered courses will define the achieved learning level.

The evaluation proposal from the Values Creation can also be used as a guide for the national federations, which define objectives to be achieved in the special programs, also to plan development opportunities (mentoring, camps, trips, Social Learning Spaces) to the coaches, so they may reach deeper and more complex learning levels.

CASE – VALUES CREATION AS LEARNING INDICATORS FROM A CAMP PARTICIPATION

The coach Ana was invited by her national federation to take part in a weekend camp, with more experienced coaches from different parts of Brazil and who worked in sport contexts distinct from hers.

Considering she was from a peripheral region of the country, she did not participate in many competitions and national events. Besides, there were not many other coaches in the region to keep in touch with her. So, when she got involved in the camp activities, connecting with more experienced coaches, from different realities, she expressed enthusiasm and an inclusion feeling, which directly resulted in her personal valuation (Immediate Value). This gave Ana self-confidence to ask questions, talk about her work philosophy, show her difficulties, the objectives to be achieved, as well as to be receptive to the other coaches' perspectives.

The creation of Potential Value was evident as sharing planning and training videos with the other professionals from the same area as her and accessed the camp link on the national federation's website. Ana identified possibilities to apply some new procedures in her daily work.

As Ana's confidence increased to interact with the coach developers and the coaches, she became more assertive about getting involved with other professionals, trying to align her philosophy, actions and results to be achieved with her team (Applied Value).

She started influencing and inspiring managers and other professionals from her region, to redirect the institution and the team objectives and stimulate the search for new knowledge, as feeling satisfied for being part of her sport national federation, the coaches group she kept in touch with, aware of the acquired knowledge from the camp (Accomplished Value).

Defining new performance objectives for herself in being a coach, her athletes, her team and the sport institution she is part of shows Ana's identity transformation, who has also changed the way of interacting with the coaches from other Brazilian regions (Transformed Value).

The sport institutions that offer development opportunities to coaches must consider the learning, like cognitive, socioemotional and behavioral (practices) transformations, in different levels (Immediate, Potential, Applied, Accomplished and Transformed). Thus, managers and coach developers can preview which "environments" may be offered to the coaches to strengthen their learning, so they can progressively (or skipping intermediate levels) achieve deeper levels of Created Values and professional development.

Table 33 - Women/men coaches learning evaluation strategies

| LEARNING EVALUATION STRATEGIES | |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Observation | <ul style="list-style-type: none"> • It is an efficient way of approaching the coaches' learning because it allows them to collect information in real situations of courses, workshops, trips, social interactions, among others. The coach developers can make notes on a diary and/or use an audio recorder. |
| Teamwork | <ul style="list-style-type: none"> • It enables the evaluation of the coaches' learning components, related to the social interactions, experiences exchanging, mutual initiatives to problem solving, team sense. |
| Online Portfolio | <ul style="list-style-type: none"> • A report of the coaches' reflections, their journeys and work philosophy offer to the coach developers the possibility to follow their critical-reflective capacity, creativity and knowledge domain. • It is considered a self-evaluation strategy that enables the coaches to analyze their involvement, behavior and activity participation in daily work. • The portfolio can be used as a permanent evaluation means, even after the coaches' participation in courses, camps, workshops etc. |
| Storytelling | <ul style="list-style-type: none"> • It refers to telling stories and/or dramatizing situations, happenings, themes that are relevant to the coaches' learning. The dynamic emotional character and the level of engagement of the storyteller indicates a potential to achieve deeper levels of learning. |



CONCLUSION

The discussions on this document strengthen that sport development is a complex gear, in a multifactorial perspective, in which the sport management must prioritize the coaches' development process, thus obtaining more success in a safe environment for everyone. They have to be developed long-term, as well as the athletes, respecting the individual characteristics and needs, throughout each professional's career.

After the athletes' development holistic approach focused upon section 1, including the respect to the several sport career stages, section 2 discussed essential aspects to build strategic plannings and actions implementation, from Brazilian national federations to the coaches and their own institutions' evolution. They are:

- The comprehension of the coaches' work context particularities is crucial to define the necessary knowledge and competences to their professional practice, also to plan programs for their development.
- The sport experience quality and achievement of practitioners and athletes' development potential are strictly related to the work philosophies and the coaches' knowledge and competences.
- The coaches' development programs must consider the different learning profiles, based on three knowledge areas: Professional, Interpersonal and Intrapersonal.
- The investment in specific coach developers' education has been an appropriate strategy to better adequate the formative initiatives to the coaches' learning needs and profiles.
- Special initiatives must be integrated into the coaches' development programs, supporting the context demands throughout the learning journey. For example, the contribution on the ex-athletes' transition to becoming coaches.

Understanding the responsibilities of each system agent, including the several sport institutions, is essential to sustainably integrate the actions. Therefore, Brazil Olympic Committee is committed to support the Brazilian national federations in guiding the good practices and the development

programs, which assist the athletes more and more in their searching for the best performance in a healthy way.

We hope that this document inspires the sport community to think about the holistic athletes and coaches' development. So, we invite the national federations and other sport management institutions to implement new strategies, following the tendencies and recommendations based on evidence and on the consolidated systems success, to positively impact Brazilian sport development.

Have a nice job!



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**ATTACH 1:
SYNTHESIS TABLE
OF THE ATHLETES
DEVELOPMENT
PATHWAY STAGES**

| EXPERIENCE AND PLAY | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERSON | | |
| APPROXIMATE AGE: FROM BIRTH TO +/- 8 YEARS OLD | | |
| <ul style="list-style-type: none"> • Growing and development of the bone, muscle and cardiorespiratory systems. • Brain and motor functions of the volunteer control development, which promote coordination and basic motor actions development. • Language development. • Gain in autonomy and creativity. • Beginning of the self-concept and self-esteem development. • Low capacity to concentrate for long periods. • Relates with the world (people and objects) through imagination because of the egocentric stage. • Family is a strong influence in building habits of body activity practice. | | |
| SPORT | | |
| FREQUENCY | EXPERIENCES | COMPETITION |
| <ul style="list-style-type: none"> • 1 or 2 times a week. • 20-60 minutes of structured activities. • Daily hours of free practice with games and children's games without an adult mediation. | <ul style="list-style-type: none"> • Inclusive, safe, joyful, challenging and mixed. • Games and children's games for physical literacy in diversified environments (water, sea, grass, sand, track, court etc.). | <ul style="list-style-type: none"> • Informal and experienced from infant games without adult interference. |
| MANAGEMENT | | |
| ACTIONS | | INDICATORS |
| <ul style="list-style-type: none"> • Sport divulgation to promote the children's physical literacy and an active lifestyle for their families. • Support the professional development (managers and teachers) to work in childhood structured sport programs. | | <ul style="list-style-type: none"> • Popularity of your sport among the infant public and their families. • Quality of the sport experience structured programs. |

| PLAY AND LEARN | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERSONA | | |
| APPROXIMATE AGE: FROM ABOUT +/- 6 TO +/- 12 YEARS OLD | | |
| <ul style="list-style-type: none"> • Slow and regular increases in high and body mass. • Great learning potential of more complex motor abilities. • From a concrete perception of the world, children gradually evolve to a more abstract thinking, improving the decision-making processes. • Children are imaginative and curious, but with a low capacity of concentrating for a long time. • Better understanding of the mate's opinions and feelings, as well as the rules. • More conscious engagement in sport. | | |
| SPORT | | |
| FREQUENCY | LEARNING | COMPETITION |
| <ul style="list-style-type: none"> • 1 to 3 times a week. • 40 to 80 minutes per session. • Daily hours of free practice with games, without an adult mediation. | <ul style="list-style-type: none"> • Low intensity and gradual quantity increase (hours and days) throughout the years of this stage. • Joyful and inclusive multisport practice. • Minisports. | <ul style="list-style-type: none"> • Learning strategy alignment to the multisport, playful and inclusive stage quality. • Adapted, local and low-cost competitive experiences, to expand the participation opportunities of more children. |
| MANAGEMENT | | |
| ACTIONS | INDICATORS | |
| <ul style="list-style-type: none"> • Development and spreading of your sport's mini version. • Professionals board development (coaches and officials) with specific qualifications to work with children for a healthy infant sport strengthening. • Educational programs for the families, stimulating a healthy participation in their children's sport life. | <ul style="list-style-type: none"> • Number and quality of the offered initiation programs. • Quantity of practitioner children by gender. • Occupation/frequency/permanence rates in initiation programs. • Families' satisfaction with the programs. • Number and quality of events organized by federations. • Number of participants in events. • Number of qualified professionals to work with this age in sport programs. | |

| LEARN AND TRAIN | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERSON | | |
| APPROXIMATE AGE: FROM ABOUT +/- 9 TO +/- 16 YEARS OLD | | |
| <ul style="list-style-type: none"> • Important physiological, physical and behavior changes because of the puberty proximity at the beginning of the stage and throughout the period. • Youth in distinct moments of the growing, development and maturation process. • Intense moments and insecurity about their own body. • Significant self-concept and self-image in autonomy development and identity building. • Better understanding of abstract ideas and logical reasoning. • Search for specific sports. • Expansion of relationship circles, search for a group belonging. • The leadership and model role changes from the family to other leaders. | | |
| SPORT | | |
| FREQUENCY | EXPERIENCES | COMPETITION |
| <ul style="list-style-type: none"> • 2 to 4 sessions a week. • 50 to 120 minutes per session. | <ul style="list-style-type: none"> • Planning and training based on the essential sport characteristics. • Maintenance of the multilateral training, with an increase of the specific training duration, quantity and intensity, in a progressive way. • Emphasis to the conditional capacities training. • Attention to the individualities. | <ul style="list-style-type: none"> • Focus on the competing process, instead of the objective results. • Adaptation of the competition models to guarantee quantity and quality in the competitive experiences. • Equal conditions to guarantee parity from qualifications or in the participants management throughout a match or series. |
| MANAGEMENT | | |
| ACTIONS | INDICATORS | |
| <ul style="list-style-type: none"> • Mapping of institutions and places of practice. • Stimulation of adequate competitions. • Board of professionals' development (coaches and officials) with specific qualifications to work with young athletes in development. • Athletes' sport development monitoring – the selectable and not selectable. | <ul style="list-style-type: none"> • Number and quality of the programs. • Number and scope of the sport institutions. • Number of the sport practitioners – boys and girls (national, local). • Number and quality of the competitions. • Interaction between practitioners/participants in competitions. • Number and qualification of officials to the specific work at this stage of competitions. • Number and qualification of coaches to the specific work with athletes at the stage. | |

TRAIN AND COMPETE

PERSON

APPROXIMATE AGE: +/- 14 TO +/- 23 YEARS OLD

- Growth and maturation at the first half of the stage may interfere in the competitive progression.
- End of the biological maturation process and progressive athletic development.
- External factors – like the sociocultural, political and economic environment – indirectly impact the sexual and intellectual maturity, interfering in the whole person's development.
- Athletes are completely receptive and ready for new and more complex learnings.
- Expressive increase in the sport development resulted from training.
- Self-management, self-regulation and independence towards career directions.
- Greater competitor behavior, necessary to the athlete's sports career.
- Emotional self-control abilities development and stress management.
- Compatibility with study and work, with the beginning of University life.
- Young athletes assume new social roles and more responsibilities.
- The family continues to be an essential support and security context. The affective relationships become more attractive and complex.
- The coexistence with coaches and the interdisciplinary team increases and are determinant to the sport results progression.

SPORT

| FREQUENCY | EXPERIENCES | COMPETITION |
|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • 4 to 12 sessions a week. • 60 to 140 minutes per session. | <ul style="list-style-type: none"> • Expressive increase in training and competition loads, including the recovery and prevention activities. • Promoting a gradual evolution from pre-junior athletes to junior, related to the training demands and performance expectations. • Sport performance refinement and search for consistency. • coaches' role decentralization, starting to associate with an interdisciplinary support team. | <ul style="list-style-type: none"> • Competition becomes more important. • The search for better classifications and indexed achievement guarantees a gradual progress in the competitive level. • National and International competitive experiences increase (national team). |

MANAGEMENT

| ACTIONS | INDICATORS |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Institutions and practice places mapping. • Promoting adequate competitions. • Professional board development (coaches and officials) with specific qualifications to work with young athletes in evolution. • Athletes monitoring – selectable and not selectable. • Anti-doping educational initiatives for athletes and professionals. • Interaction with senior athletes and coaching staff, facilitating the comprehension of the elite athletes' routine. | <ul style="list-style-type: none"> • Number and scope of sport institutions. • Number and scope of the specific sport practices places. • Number of federated athletes by gender in the sport. • Number of national and international competitions. • Athletes list taking part in the national and international competitions. • National and international conquest ranking. • coaches and officials number and qualification to the specific work at this stage competitions. |

COMPETE AND WIN

PERSON

APPROXIMATE AGE: +/- 18 TO +/- 25 YEARS OLD

- Athletic development increases.
- . Regular care with the body and aspects related to health and performance.
- . Personal and professional growth, greater engagement in decisions about their career.
- . Strengthening of the athlete and competitor identity aspects.
- . Adaptation to the high-performance athlete's career changing, demands and responsibilities.
- . Double career compatibility (academic or vocational) and balance between professional, vocational and social life.
- . Healthy and positive relationship with the coaches and teammates.
- . Interdisciplinary teams are more frequent in training and competitions.

SPORT

| FREQUENCY | EXPERIENCES | COMPETITION |
|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • 5 to 12 sessions a week. • 60 to 160 minutes per session. | <ul style="list-style-type: none"> • Extensive increase in training loads. • Individualized load training. • Systematized monitoring (sleep, nutrition, hydration, emotional status etc.) by the interdisciplinary team. • Greater participation of the interdisciplinary team in daily routine. | <ul style="list-style-type: none"> • Competition is the main rising factor. • Increase in the international level events participation, traveling periods, living in training centers or hotels and even abroad. • The preparation is focused on the great events, like the South American, Pan American, World and Olympic Games. |

MANAGEMENT

| ACTIONS | INDICATORS |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Bigger support (equipment, financial, logistics, HR, infrastructure etc.) so athletes may be totally dedicated to sport and take part in international competitions. • Sport performance monitoring of the high-performance athletes. • Support to the incentive pay and sponsorship programs access. | <ul style="list-style-type: none"> • Number and structure of the specific sport practice places. • Number of sport federated athletes (men and women). • Number of national competitions and participant athletes list. • Number of international competitions – continental, Olympic and world – and participant athletes list. • National and international conquest ranking. • coaches number and qualification to the specific work at this stage competitions. |

| WIN AND INSPIRE | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PERSON | | |
| APPROXIMATE AGE: +/- 20 TO +/- 40 YEARS OLD | | |
| <ul style="list-style-type: none"> • The physical development reaches the performance peak with the training. • The care of the body becomes part of the daily routine. • Care with the athletic training, considering the injuries background. • Improve the concentration, relaxing and competitive mindset strategies. • Continuous development of self-knowledge and socioemotional abilities. • Conciliate career with the family and other social surroundings. • Search for human, social and cultural development. • Play a reference and inspiration role in the sport context and in the society. | | |
| SPORT | | |
| FREQUENCY | EXPERIENCES | COMPETITION |
| <ul style="list-style-type: none"> • 5 to 14 sessions a week. • 60 to 180 minutes per session. | <ul style="list-style-type: none"> • The training must focus the athlete on search for strengthening the performance and results. • coaches must consider the athlete's perception even more, in training and planning the competition strategies. • Transition and detraining programs at the end of the stage. | <ul style="list-style-type: none"> • Competition regulates the training processes. • Performance oscillation periods are common, mainly when there are training strategies adjustments, age group or event changes. • Athletes may play a double role of technical leader and teammate, contributing to younger and inexperienced athletes. |
| MANAGEMENT | | |
| ACTIONS | INDICATORS | |
| <ul style="list-style-type: none"> • Support (equipment, financial, logistics, HR, infrastructure etc.) so athletes may be totally dedicated to sport and take part in international competitions. • Sport performance monitoring of the high-performance athletes. • Future athletes' generation educational programs with the current elite athletes leadership/mentoring. • Career transition programs. | <ul style="list-style-type: none"> • Number and structure of the specific sport practice places. • Number of sport federated athletes (men and women). • Number of athletes with possibilities to establish or keep themselves in elite, at the following cycle. • Number of international competitions – continental, Olympic and world. • Participant athletes listed in national competitions. • Participant athletes listed in international competitions – continental, Olympic and world. • National and international conquest ranking. • coaches number and qualification to the specific work at this stage competitions. • Number of athletes with possibilities to end their career at the following cycle. | |

INSPIRE AND REINVENT YOURSELF

PERSON

- Search for pleasure by other training means and intensity, many times in different sports from the one they had competed.
- New social, professional and financial context adaptation, besides the demands of the new feeding and body patterns.
- Adequation to a less visible role in sport context or even the detachment of the sport environment.

SPORT

| FREQUENCY | EXPERIENCES | COMPETITION |
|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • 4 to 10 sessions a week. • 50 to 140 minutes per session. | <ul style="list-style-type: none"> • Gradual training load and quantity diminishment. • Engagement in new body practices. • Active lifestyle maintenance. | <ul style="list-style-type: none"> • Planning of the competitive level adjustment at the transition period, resulting in less expressive competitions. • The retirement from the national team does not necessarily represent closing the sport career. It may be extended with the participation in national, regional or interclub competitions. • The last participation in a competition may be a special moment of saying goodbye and awarding. • Starting other sports may also stimulate the participation in amateur competitions. |

MANAGEMENT

| ACTIONS | INDICATORS |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • The athletes' holistic development at all sport career stages contributes to their self-confidence and motivation to invest in this closing moment preparation. • Identification of the reasons that lead athletes to end their sports career, at the different development stages. • Awareness and counseling actions to athletes at the end of their career. • Career Transition Programs that may help the professional's life guidance and planning, including the support to work in the sport market and in the technical or management area. • Stimulation to take part in training programs of different roles in the sport. | <ul style="list-style-type: none"> • Number of benefited athletes in the Career Transition Programs. • Number of graduated athletes at the end of their sport career. • Number of athletes that continue working in the sport context after their retirement |

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