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## DEVELOPMENT OF TABLE TENNIS COACHING: BEGINNERS

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## MESSAGE FROM THE CBTM CHAIRMAN

To table tennis friends! In this act, we delivered one of our first efforts related to the dissemination of knowledge about our sport. We carried out a very robust internal process here, which brought together practice and science, which is an essential combination for the development of sport in the country.

With the agreement signed with Unicamp, from the Interdisciplinary Research Group on Racquet Sports, and with the consent of the Brazilian Paralympic Committee and the Brazilian Olympic Committee, we started to build an integrated scope, aiming at improvements and systematization in the formation of coaches, referees, and managers.

For CBTM it is clear that to remain at the top in competitive terms in the Olympic and Paralympic segments, we will need to overcome the existing level of knowledge about table tennis worldwide. For this very reason, the model we have adopted is fully in line with what the ITTF is advocating in terms of development, which reinforces the choices and points of convergence of this great project.

With this, we expect the maximum adhesion of State Federations, Regional Leagues, Clubs, Associations and Academies, allowing the indication and orientation for the specialization and deepening of its professionals. The evolution of Brazilian table tennis depends on all of us!



**Alaor Azevedo** 



## **PRESENTATION**

The Table Tennis University is a program of the Brazilian Table Tennis Confederation (CBTM) that has the main objective of hosting a complete training program for the development of coaches, referees, and managers of Brazilian Table Tennis. The Coaches School is one of its pillars, consisting of national and international certification courses, courses applied to Table Tennis in different areas of knowledge as well as noncertified actions (CBTM, 2016). The national certification or Coach Education Program is outlined through three courses, namely: Beginners, Athlete Development and High Performance. In this document, we will focus on the descriptive material of the Beginners Course, showing the integrated scope of Olympic and Paralympic Table Tennis and including the theoretical-practical structure for its offer to the community of coaches.

Our starting point for outlining the Coach Education Program, and starting its production through the Beginners course, was to establish its values. To do so, we rely on three guiding principles: a) coach-centered approach, considering its professional, interpersonal, and intrapersonal knowledge; b) the development of athletes, recreational practitioners and personal development, and c) game-based and player-centered approaches.

Traditionally, coach certification courses are characterized by the transfer of knowledge from trainers to coaches. In the last decades, the scientific community has shown a low effectiveness of this model in the development of coaches and, in many cases, a negative perception of the coaches themselves about their experiences in these courses. And he has proposed a transition to a coach-centered teaching model, known as Learner-Centered Coach Education.

Being centered on the coach means valuing his experiences and perspectives and treating him as co-responsible for his own learning and the learning of his peers. It is a perspective that focuses both on the coach as well as on his learning process. that is, on the teaching-learning actions that are most effective in promoting to athletes the highest degree of motivation. learning, development, and result. This perspective therefore considers learning as the result of the interaction between coaches and trainers to build knowledge and competences that are applied to the field of this coach (NSSU, ICCE, 2016-2017; PAQUETTE and TRUDEL. 2018: CIAMPOLINI et al., 2019). This principle permeates the entire design of the Coaches Education Program, as in the topics "Coaches in action!" and will play a fundamental role in its offer as well as in the development of future coach developers who will work around Brazil.

The development of athletes, recreational practitioners and personal development are provided by long-term models of sports



development (CÔTÉ and ERICKSON, 2015; CÔTÉ et al., 2017). In view of this, we present, right at the beginning of the Beginners course, an integration of two proposals that meet this model, one for Table Tennis: the High Level Route (GADAL, 2011) and another more general one: the Development Model of Sport Participation (DMSP) (CÔTÉ. BAKER, ABERNETHY, 2007; CÔTÉ, FRASER-THOMAS. 2007: CÔTE et al., 2009). We believe it is essential that the coach has clarity of this integrated model to promote sports training both for participation and for best sports performance, while also promoting the personal development of the table tennis player.

Finally, we assume as the third guiding principle a game-based and player-centered approach for teaching and training table tennis. We show the teaching of Table Tennis based on its competitive environment, that is, in the totality of its game. In turn, being player-centered means promoting a teaching environment in which this player takes a leading role in your learning process. And, for this, a fundamental role of the coach

is evidenced as a mediator of this process (GALATTI, et al., 2019). According to Gadal (2011), this perspective serves the teaching of the 'true' Table Tennis and adds to the traditional perspective for the diversification of teaching methods in the development of the sport. This principle appears evidenced throughout the Beginners course, having Non-Linear Pedagogy (GALATTI, et al., 2019) and the references of Sport Pedagogy (MACHADO, GALATTI, PAES, 2015) among its bases.

Once we have presented our guiding principles, we will now focus on presenting the design and structure of the Beginners course, developed through three stages (Figure 1). This consists of:

- Three modules developed in person or online synchronously (live), totaling a workload of 36 hours.
- Three asynchronous online courses, namely: "Game-based and playercentered approach for teaching and training table tennis",

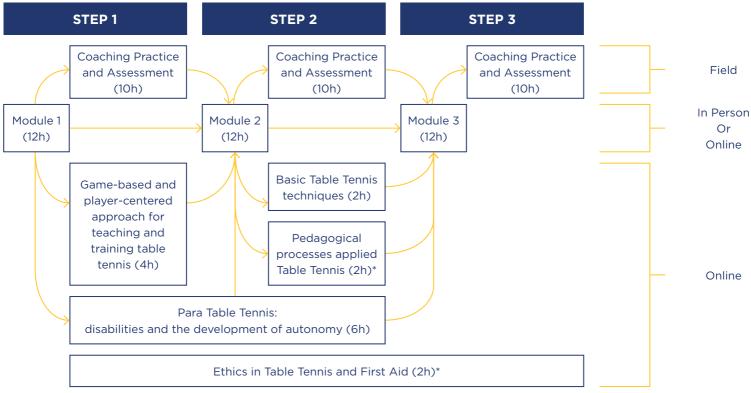
"Para Table Tennis: the disabilities and the development of autonomy" and "Basic Table Tennis Techniques", totaling a workload of 12h. These courses are mandatory for all course participants.

- Two asynchronous online courses, namely: "Pedagogical processes applied to Table Tennis" and "Ethics in Table Tennis and First Aid", totaling 4 hours. These courses are mandatory for non-professionals and desirable for Physical Education and Sport professionals.
- Three moments of Coaching Practice associated with the Course Assessment, totaling 30 hours of workload.

The three stages can be offered over three consecutive weeks, or you can distribute the offer of one stage per month, for example. In this second format, more time is available for the participants to take the "Online courses" and the moment of "Coaching Practice and Assessment" foreseen for that stage and being able to start the next stage.



Figure 1: Beginners Course: Design and Structure



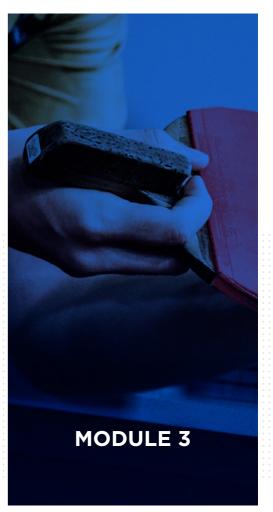
Source: prepared by the authors

### AND SO, COACHES, LET'S START THIS DEVELOPMENT JOURNEY?

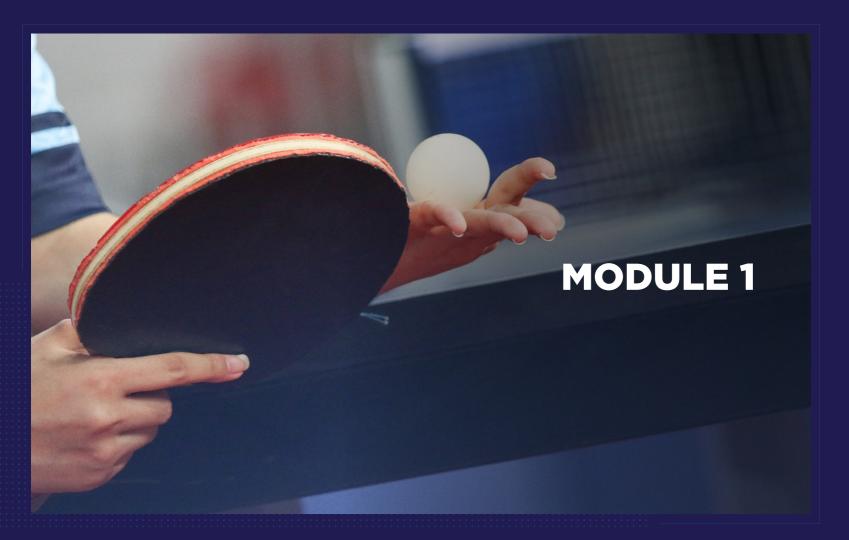










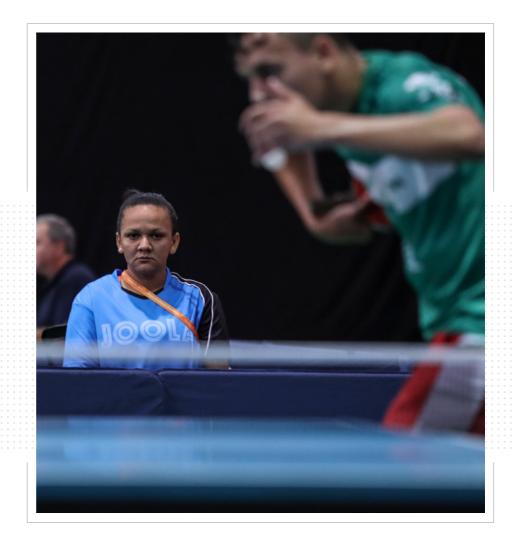




## **RESULT**

At the end of this module, the participants will be able to:

- Understand the context of Sports Initiation to Table Tennis:
- Reflect and discuss about the knowledge and competences to work as a Coach in the Introduction to Table Tennis;
- Understand the game of Table Tennis: its internal logic, its temporal structure, its phases of games and its rules;
- Understand the references that support the teaching-training procedures of Table Tennis and visualize ways of how to develop them;
- Build rapport with the group of Table Tennis Coaches.





## **PRESENTATION OF PARTICIPANTS**

We propose that the presentation of the participants should be brief, interactive, and dynamic. We also propose to register the cohort of coaches in the Beginners course as Cohort 1, Cohort 2, and so on, for each course offer.









## **VISION: WHAT DO WE SEEK WITH THE SPORTS INITIATION?**

Sports Initiation is one of the steps within a Long-Term Sports Development process. So, to answer 'what are we looking for with Sports Initiation?' we must be clear about the sports development model in which it is inserted.

In Figure 2, we can see the integration of two proposals, one for Table Tennis and the other more general. To the left is the High-Level Route (GADAL, 2011). Next to it is the Developmental Model of Sport Participation (DMSP) (CÔTÉ, BAKER, ABERNETHY, 2007; CÔTÉ, FRASER-THOMAS, 2007; CÔTE et al., 2009).

Looking at the first stage of the DMSP, we see two distinct paths in sports initiation: one of them proposes a phase in which there is pleasure in the game, fun, in which the student experiences many games and plays, with little deliberate practice and diversified sports experience. The other path is that of early specialization, focusing on just one specific sport, with the presence of few games and plays and a lot of deliberate practice.

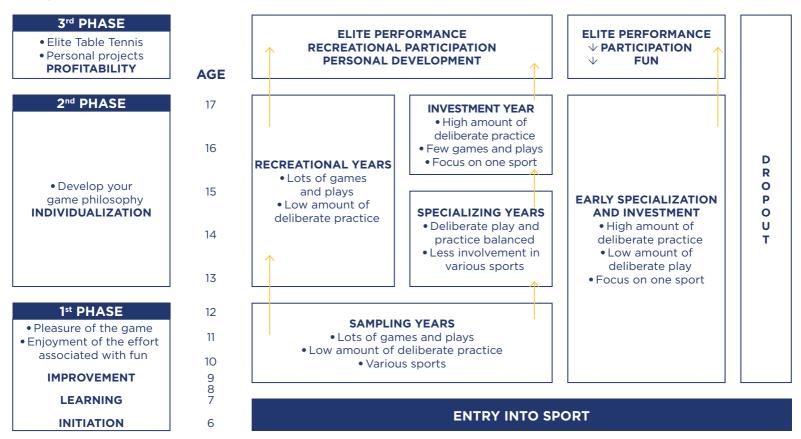
The development of elite athletes/table tennis players can be achieved in both ways: there is no recipe that will work with any practitioner. However, personal development

and the development of recreational practitioners is reduced from the perspective of early specialization. In addition, the latter path is associated with high rates of dropout. This may explain why the specific model for Gadal's Table Tennis (2011) argues that the first stage is associated with the pleasure of the GAME, effort, and FUN.

Our vision, therefore, follows the path of diversification. Therefore, we start from the premise of Sports Initiation as a phase of diversification of sports and practices, with the game being prioritized in front of other more closed teaching strategies, and which contemplates the initial phase of both sports training for participation and specialization high performance.



Figure 2: Long-Term Sport Development Model, which integrates the "High-Level Route" and the "Developmental Model of Sport Participation"



Source: adapted from Côté, Baker, Abernethy, 2007; Côté Fraser-Thomas, 2007; Côté, et al., 2009 and Gadal, 2011.



The authors of the DMSP investigated the sports trajectory of hundreds of athletes of various disciplines and, in defending a long-term development model for evidence-based sport, indicate that sports training for both participation and maximum performance is enhanced when based in the diversification of sports experiences during childhood, as well as in a wide range of games. Therefore, the diversity of sports and the diversity of activities and practice in the same sport are fundamental bases in the promotion of a diversified context favorable to personal engagement (CÔTÉ, ERICKSON, 2015; CÔTÉ et al., 2017).

In this way, Table Tennis Sports Initiation will be the basis for the development of table tennis players who will be able to compose the programs presented in the Strategic Planning of the Brazilian Table Tennis Confederation, namely: "National Elite", "International Elite and International Talents" and "Recreational Practitioners" (CBTM, 2016).

Looking again at the Figure, we can also observe that the Sports Initiation phase is contemplated within these models between the age groups of 6 to 12 years. But does Sports Initiation exclusively serve this audience?





## **SPORTS INITIATION TO TABLE TENNIS:** FOR WHOM?

For anyone and everyone who wants to learn the sport!

### 1.2.1 **FOR KIDS...**

In general, Table Tennis Initiation is really aimed at children, such as the ITTF Level I 1996 are the first generation that grew up Course for Coaches (effective until 2020) (TEPPER, 2007) and the set of practice plans for table tennis presented by Ginciene and Deprá (2014), in which games and fun are included.

working with children? What are the most this audience?

Children and young people born from entirely digitally. And their coaches have reported that while this generation is highly educated and has excellent skills in dealing with technology, it also has characteristics such as: high expectations for success, short attention spans, poor communication skills And you, coach, have experience and inability to deal with adversity. Coaches also reported the difficulty in finding ways to challenging characteristics of working with connect with these players (GOLD, NALEPA, MIGNANO, 2020).



Given this scenario, some aspects are pointed out as relevant by coaches for working with this generation, such as: motivating players, communicating effectively, working with attention, defining expectations, developing independent students, building resilience, and individualizing teaching (GOLD, NALEPA, MIGNANO, 2020).

We emphasize, however, that the players in the study above were Americans. In Brazil, our reality may be more diverse, and we can find other profiles of children and young people of this generation. Anyway, we believe that more digital behavior and less body and motor experiences has become more and more frequent. Faced with this scenario, we really have to think about offering a broader and more basic exploration of movements, games and plays that rescue the value of physical effort, like what is proposed in the sports development models presented at the beginning of our course (CÔTÉ, ERICKSON, 2015; CÔTÉ et al., 2017, GADAL, 2011).



### 1.2.2 FOR ADULTS AND ELDERLY...

Sports initiation can also happen in adulthood, a process called Late Sports Initiation (PIMENTEL, GALATTI, PAES, 2010). And in recent years, studies have shown the potential of teaching Table Tennis in a game-based and player-centered approach including young adults (ZHANG et al., 2012; BELLI et al., 2017 and GALATTI et al., 2019).

The Late Initiation to Table Tennis can also be experienced by the elderly. Players from 60 to 79 years old reported that this practice improves their health, their self-esteem, their physical condition, and their cognitive aspects. In addition, the valorization of the table tennis activity as a multiplier of socioeducational elements of valorization of the elderly was also evidenced in this study (SILVA, OLIVEIRA, 2019).



### 1.2.3 FOR PEOPLE WITH DISABILITIES...

Initiation to Racquet Sports for people with disabilities can happen in childhood, but it is common for it to occur in the late stage, especially when the disability is acquired. In general, it is important to know the disabilities, ensure a safe practice environment (taking care not to have an overprotective posture and, above all. seeking to maximize the potential of players with disabilities), to know the adaptations (in the places, equipment, materials and/ or rules) and teaching strategies, including games and plays. It is also important to encourage family involvement in the development of classes, especially when the practitioner needs support to move around and other daily activities (STRAPASSON, LOPES, 2021).

In Para Table Tennis, players with disabilities are divided into 11 sport classes. Players that compete in a wheelchair are classified within class 1-5 while those who compete standing within 6-10, following the logic of the higher the number of the class, the lower the physical-motor impairment of the para-athlete. Class 11 is for players with intellectual disabilities (ITTF, 2018).

The online course "Para Table Tennis: disabilities and development of autonomy" (Parts 1 and 2)\* presents a deepening of knowledge about the categories and classes of disabilities as well as about the eligible impairment, minimum impairment criteria in the Para Table Tennis classification.

<sup>\*</sup> Offering the Beginner course, including all modules and online courses mentioned in this document, is available through the Table Tennis University – Distance Learning (https://unitm.cbtm.org.br/).



## AND WHICH PLACES CAN THE SPORTS INITIATION

**TO TABLE TENNIS TAKE PLACE?** 

Traditionally the practice of Table Tennis occurs in clubs and associations, and we can observe this scenario when checking the entities affiliated to CBTM around Brazil (CBTM, 2020a).

However, sport is a sociocultural phenomenon that occurs in multiple scenarios, such as in sports complexes, in clubs and associations, in schools (including inclusive ones) and Universities, in academies, in rehabilitation institutions, in Non-Governmental Organizations (NGOs), in companies and also on the streets people play sports (GALATTI et al., 2018).

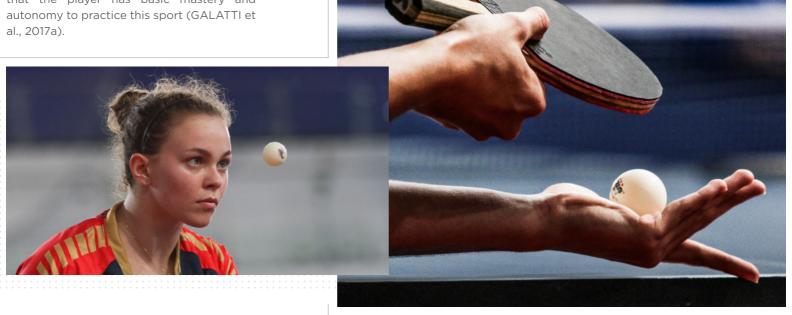
Visualizing this multiplicity of scenarios can bring us new contexts for the Initiation to Table Tennis, as more recently in academies that were constituted specifically for its practice and has been growing in the national scenario (CBTM, 2019) and of projects foreseen in the Strategic Planning of CBTM that foresee their insertion in different contexts of practice (for example: "Table Tennis Schools" and "Urban Table Tennis") (CBTM, 2016).





# AND IN VIEW OF EVERYTHING WE HAVE DISCUSSED BY NOW, HOW CAN WE DEFINE SPORTS INITIATION?

In this program, we define Sports Initiation as the first systematized contact with the Table Tennis, mediated by a coach, in order that the player has basic mastery and autonomy to practice this sport (GALATTI et al., 2017a).





## 1.5 COACHES IN ACTION!

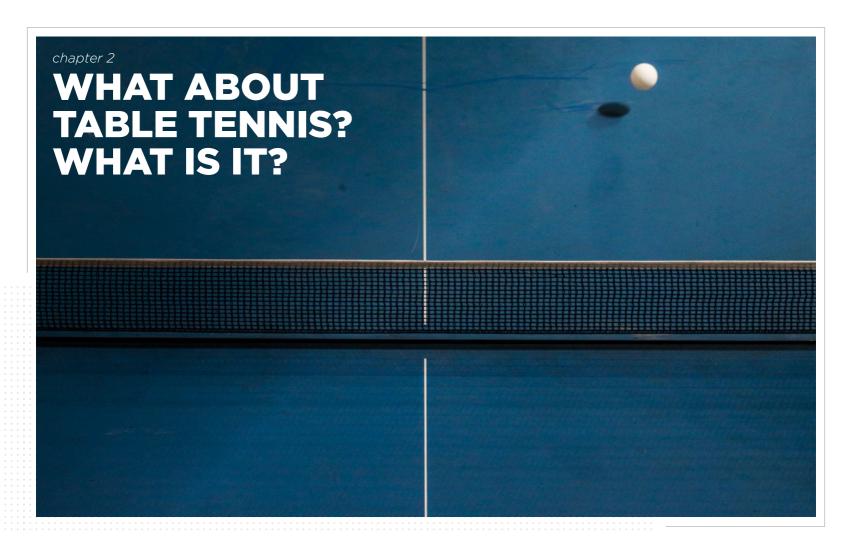
And if the Sports Initiation is mediated by a coach...

What knowledge and/or competence should the coach have to develop this player?

For the development of this stage of the course, the following strategy is suggested:

- Create structured opportunities for coaches to answer the question with a colleague or in a small group.
- Make a conversation circle and discuss the responses of small groups collectively.
- List them on a chart to be consulted throughout the course.
- In addition to being consulted throughout the course, it is proposed that this framework be discussed in comparison with the framework of competencies of the International Council for Coach Excellence (ICCE, ASOIF, LBU, 2013) in module 3 course.







And if the Sports Initiation aims for the player to have basic mastery and autonomy to practice Table Tennis, we need to understand well what Table Tennis is...

2.1

## LET'S START BY **EXPERIENCING A REPRESENTATIVE TABLE TENNIS GAME?**

Following the line of an approach called Nonlinear Pedagogy (NLP), we will consider that the learning of functional movement patterns (that is, the ability to solve game problems using different movement patterns) emerges through the interaction of individuals, training environment and task constraints (i.e., boundaries that shape our behaviors and decisions). Thus, when we design training tasks to initiate Table Tennis, the GAME gains prominence, facilitating the design of REPRESENTATIVE tasks (i.e. tasks that represents the competitive environment and respects the game dynamic context) (GALATTI et al., 2019).

Therefore, coaches must be reflective and careful when designing activities, observing: the instructions they intend to offer, size of the ball and weight, size of the table, auxiliary targets, etc., to encourage beginners to explore and find movement patterns that give them to achieve the objectives of the tasks.

The online course "Game-based and player-centered approach for teaching and training table tennis" presents an in-depth study of this subject (Part 1) and examples of representative Table Tennis games/tasks (Part 2).

Let's experience one of these games.

### GAME: REFERENCE POINT

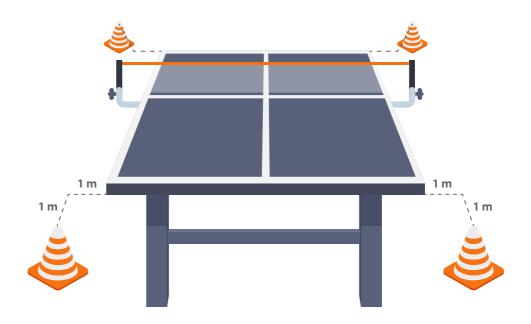
### Aims of the game

- Footwork of the player and the opponent.
- Reading the position of the opponent.
- Ball placement according to your decision making during the game to win the point.



### Game description and rules

- Game 1 against 1, up to 11 points with official table tennis rules.
- Before each stroke, the player must touch his hand in one of the two cones, which are positioned at 1 m from the end line of the table and from each sideline of the table. The cones are positioned on both sides of the table. Observe a representative drawing to the right of one side.
- The player can choose which of the cones to touch before his next stroke.
- If the player does not touch his hand on one of the cones, the point belongs to the opponent.





### Game management (Management of pedagogical rules and procedures)

- Questioning players about how they are doing the footwork, emphasizing the technical element of the game.
   Question the players about reading the opponent's position for subsequent ball placement, emphasizing the tactical element of the game.
- Increase or decrease the distance of the cones in relation to the sideline, to increase or decrease the tactical complexity of the game.
- Position the cones in different game zones. In the initial description, the cones are arranged 1 m from the end line. The coach can also explore mini cones/markings positioned on the table and close to the net, or still, cones positioned on the floor

between 1 - 2 m or 2 m or more away from the table's end line. These game zones are described in the work of Munivrana, Furjan-Mandic, Kondric (2015). In this way, the player will be exposed to different game situations, which will require different types of footwork (sideway steps, front/back, etc.), but having the tactical element in common (that is, reading the opponent's and position the ball out of your reach).





## THE TABLE TENNIS MATCH

The official table tennis match is played in 5 or 7 games, with the winner being the one who wins 3 or 4 games in each of the formats, respectively. The player must total 11 points to win each game, with each player perform two serves alternately (ITTF, 2020).

But, in addition to these very basic rules...

- What is the temporal structure of this match?
- What are the game phases?
- Does the match take place in a predictable and objective way?

And finally:

 What is the logic of the game of Table Tennis?

In view of these questions, you may be asking yourself: but is this knowledge necessary for table tennis coaches teach beginner players?

According to Gadal (2011), the analysis of the high-level game is the starting point for the organization of the contents for the teaching of Table Tennis since the Initiation if we aim to work with the reality and offer all the chances to the player of practice 'real' Table Tennis

Let's go to the game analysis...





### 2.2.1 TEMPORAL STRUCTURE OF TABLE TENNIS MATCH

### - How long does a rally last for national and international table tennis players?

On average 3.3s. And we can also point out that 90% of the rallies last from 1.5 to 5.5. s, being: 33% from 1.5 to 2.5 s; 30% from 2.5 to 3.5 s: 18% from 3.5 to 4.5 s and 8% from 4.5 to 5.5 s. (ZAGATTO, MOREL, GOBATTO, 2010).

### - And for para-athletes, how long does a rally last?

For sport classes 1, 2, 4 and 5 of wheelchair para-athletes, the duration of the rally corresponds on average to 3.4: 4.2: 4.5 and 5.2 seconds (Silva and Reina, 2017a), For sport classes 6, 7 and 8, the duration of the rally corresponds to 4.6: 5.4 and 4.6 seconds (SILVA, REINA, 2017b).

### - And how many strokes are carried out within each rally?

(ZAGATTO, MOREL, GOBATTO, 2010)

### - And how long do players rest/pause between rallies?

National players have average pause times of 8.1s, while international players have average pause times of 18.3s. (ZAGATTO, MOREL, GOBATTO, 2010; LEITE et al. 2017).

### - And why this difference in the pause time between national and international plavers?

International players probably use more time for strategic/tactical reflection between rallies. (LEITE et al. 2017)

### - And for para-athletes, how long is a pause between rallies?

For sport classes 1, 2, 4 and 5, the duration of pauses corresponds, on average, to 13.8; 14.0; 13.3 and 12.3 seconds (SILVA, REINA, 2017a). For classes 6, 7 and 8, the duration of the pause corresponds on average to 12.4: On average, from 1 to 12 strokes. 12.6 and 11.3 seconds (SILVA, REINA, 2017b).

### - And can the phases of the competition influence these characteristics?

In the semifinals and finals, the table tennis players remain a longer time on the pause, probably due to a longer planning time for the next rally, or even, to slow down the game at a time when the opponent is more offensive (LEITE et al. 2017).

### - And what is the total table tennis match time?

It varies from 20 to 70 min (LEITE et al. 2017).



### 2.2.2 TABLE TENNIS GAME PHASES

During a table tennis match, we can observe moments of attack, defense, counterattack, as well as moments in which the player seeks to establish a favorable position within the rally to win that point.

Munivrana, Furjan-Mandic, Kondric (2015) characterize 4 possible game phases of the Table Tennis, namely:

**1.** Offensive/Attack phase: Offensive strokes at defensive balls.

**2.** Passive Defense phase: Defensive strokes at offensive balls.





- **3.** Active defense phase/Counterattack: Offensive strokes at offensive balls.
- 4. Phase of preparing one's own and disabling the opponent's attack: Strokes that do not have a clearly pronounced defensive or offensive element but are used to prepare a favorable game situation to execute your own attack or to disable an opponent's successful attack.

Contreras Jordan, et al. (2007) when approaching racket sports, they assume that while in the attack the athlete takes the initiative of the game to reach his goal, in defense he seeks to recover the initiative of the game, to prevent the opponent from reaching the goal.

And Cardoso et al. (2021), in a more recent proposal also applied to racquet sports, they show us that

the attack can be composed of two offensive concepts, namely: create space and trying to win the point; that defense is characterized by the action of defending against a possible attack, but that an attack can also be answered by means of a counterattack; and that between performing offensive and defensive actions, the player seeks to establish a position, positioning himself in the best place for playing the next action.





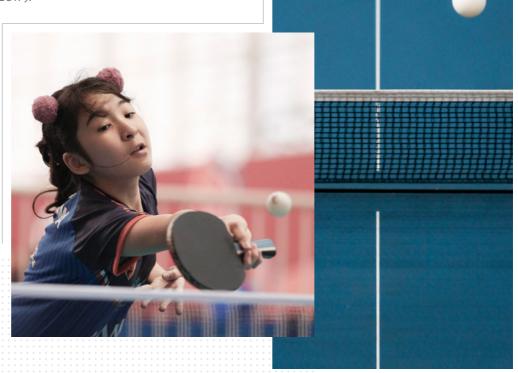
### 2.2.3 UNPREDICTABILITY AND SUBJECTIVITY 2.2.4 THE LOGIC OF THE TABLE TENNIS MATCH

When we try to answer whether a table tennis match is unpredictable and subjective, Gadal (2011) gives us some clues when addressing the concept of adaptability.

For the author, adaptability is an essential quality and is among the conditions sine qua non for success in Table Tennis. The author defines it as "the skill to play with a good level of efficiency in situations of instability: uncertainty of the environment." And he adds: "This is the golden rule if you want to deal with the uncertainties of Table Tennis."

If there are uncertainties and situations of instability and if the skill to deal with these demands depends on the player, we can assume that we are facing an unpredictable and subjective scenario.

The logic of the table tennis fits in the same way as racket/ net sports, which is: hit the ball to the other side of the net, so that the opponent cannot return it (BELLI, et al., 2017).













When we think about learning Table Tennis, we often think about the techniques of this sport, which is correct, but too little!

"Sport teaching, experience, learning or training processes, in any sport, must be contextualized in a given scenario, according to the characters and the meanings attributed. Regardless of the context, (...) three references that should guide educational sport practice, namely:" (GALATTI et al. 2017b)

 the tactical-technical: this reference is associated with strategic, tactical, motor, physical issues, movements, and techniques of each sport. For Paes (1996), who inaugurated this proposal, this framework should lead us to respond to the tactical-technical and physical-motor elements of table tennis: What to teach? When to teach? How to teach? Note that we opted for tactical-technical and non technical-tactical, since technical decisions are resulted of tactical actions, considering sport unpredictability and the interaction with opponents and playing space (GALATTI et al., 2017a);





the socio-educational: this reference refers to personal and social attributes, values and behavior manners that can be built and shared in sport practice. Galatti (2006) states that sport, as a multiple possibilities phenomenon, promotes not only the learning of technical and tactical issues, but also can promote and discuss values. The deal with values and behavior manners in the teaching, experience, learning and sports training process is what we call as a socio-educational reference (MACHADO, GALATTI, PAES, 2014).



 the historical-cultural: this reference encompasses rules, history, players, and remarkable facts about the sport around the world and in the specific context in which the practitioner lives (MACHADO, GALATTI, PAES, 2015). By contemplating this reference, we increase the chance of positively influencing the appreciation of the sport. The interest in sport is associated with deeply knowing it, with the resignification of practices based on the knowledge of its emergence, its trajectory, evolution, of national and international sporting events, of representative athletes (MACHADO, GALATTI, PAES, 2014). It is also important to stimulate knowledge to appreciate the local history and culture of table tennis: in your club, school, or project, in your city: who are the people and institutions that can be a reference for table tennis players? (GALATTI et al., 2016).



Table 1 summarizes this proposal.

Table 1: References of Sport Pedagogy

#### **REFERENCES**

- Teaching and learning methods;
- Planning over the period (month, two-month, semester, year...);
  - Organization of each class/training;
  - Adequacy of the proposal to the working group;

#### **TECHNICAL-TACTICAL**

- Strategies;
- Offensive Tactical Aspects;
- Defensive and Transition;
  - General Motor Skills
- Specialized Fundamentals;
  - Motor skills.

#### **SOCIO-EDUCATIONAL**

- Promote the discussion of principles, values and behaviors;
- Propose the exchange of roles (putting oneself in the other's place);
  - Promote participation, inclusion, diversification, co-education and autonomy;
- Build a favorable environment for the development of intrapersonal and interpersonal (collective) relationships;
  - Establish relationships between what happens in the sports class and community life.

#### HISTORICAL-CULTURAL

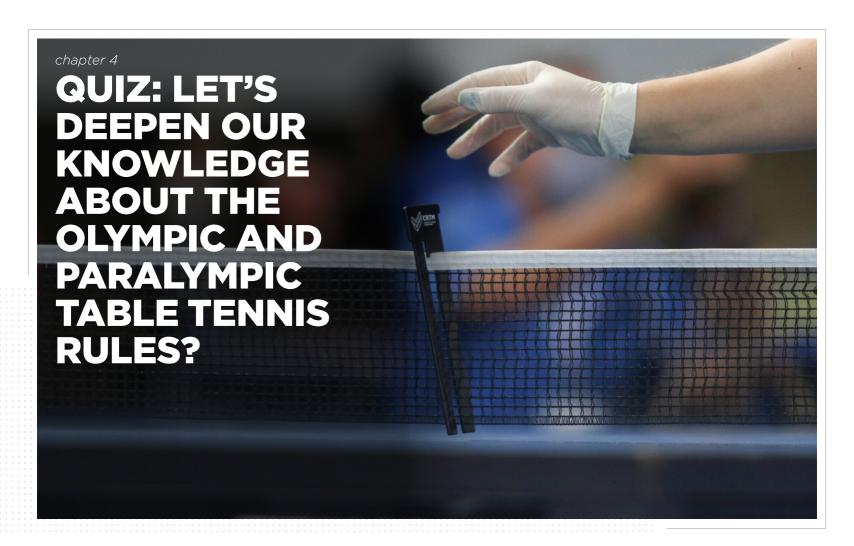
- History of sports;
- Evolution of sports;
- Rules and context of its changes;
- Main competitions at local, regional, national and international level;
  - Personalities of each sport;
  - Other knowledge needed to understand the sport.

Fonte: Machado, Galatti, Paes, (2015).











The proposed Quiz consists of 10 statements that can be true or false. (NAKASHIMA, 2012; ITTF, 2020). So, coaches, let's test your knowledge about the rules of Table Tennis?

1. For the standing classes (classes 6 to 10) of Para Table Tennis, service must be repeated if the ball leaves the table by either of the receiver's sidelines (on one or more bounces).

2. In doubles matches, for athletes from classes 1 to 5 of Para Table Tennis, the server shall first make a good service, and the receiver shall make a good return, and thereafter either player of a pair may make good returns. During the play, no part of a player's wheelchair shall protrude beyond an imaginary extension of the centre line of the table.

**3.** The server shall project the ball vertically upwards, without imparting spin, so that the ball rises at least 16 cm after leaving the palm of the free hand.

**4.** When serving in the doubles game, the ball must bounce only on the left half portion of the table for both the server and the receiver.

**5.** If both players score 10 points, the game shall be won by the first player subsequently gaining a lead of 2 points. In this case, serves are alternated at each point.

**6.** Table Tennis match shall consist of the best of any odd number of games.

**7.** The ball shall be spherical, with a diameter of 38mm and shall weigh 2.7 g.

**8.** The ball shall be made of celluloid or similar plastic material and shall be white or orange, and matt.

**9.** After striking the ball, wheelchair players (classes 1 to 5 of Para Table Tennis) are allowed to touch the table with racket hand.

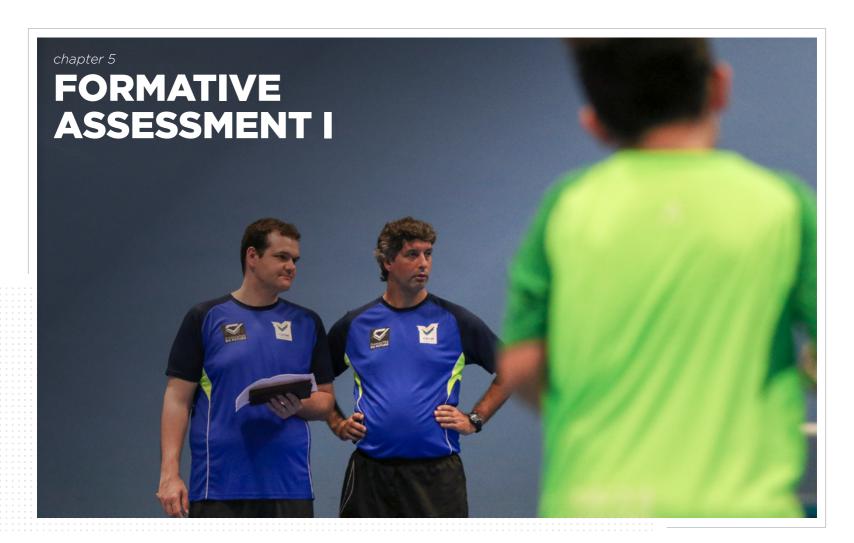
**10.** Rule with effect from October 1, 2021: rackets will have black rubbers on one side, and another color that is clearly distinguishable from black and from the color of the ball on the other side.

As a final part of this stage of the Quiz, it is proposed to hold a conversation circle among all participants of the course, to foster a deepening and clarification of doubts about the rules of Olympic and Paralympic Table Tennis.

#### ANSWERS.

1. False. This rule applies to the classes of wheelchair players (classes 1 to 5) and not to standing ones (classes 6 to 10). 2. True. 3. True. 4. False. In fact, the ball must bounce only on the right half portion of the table for both the server and the receiver. 5. True. 6. True. 7. False. In fact, the Table Tennis ball has been 38mm in the past, currently it should be 40mm. 8. True. 9. True 10. True







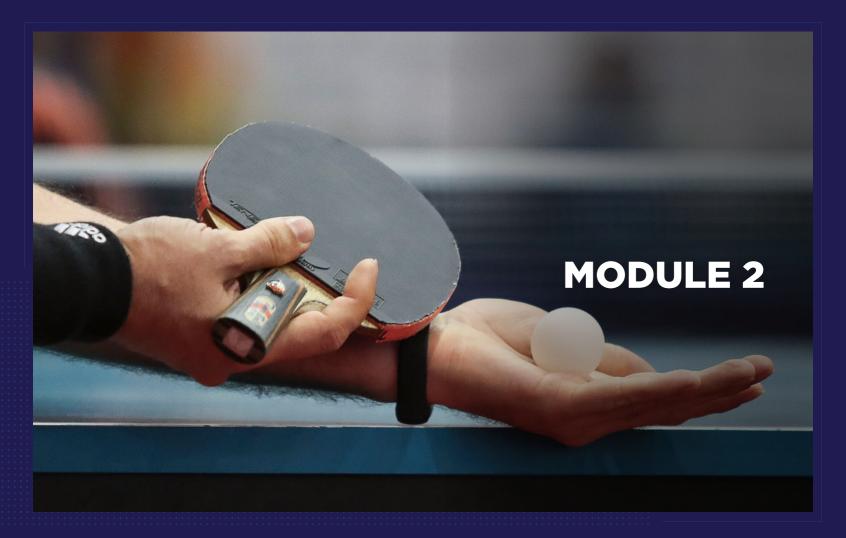
Among the competencies that we list in the course, which competence should I improve? How to improve it?

Develop this assessment during the 10 hours of coaching practice that should be carried out after this module, through a critical friend, and present a report at the beginning of the next module.

A critical friend, as the name suggests, is a trustworthy person who asks provocative questions, analyzes responses through another lens, and offers critique of a person's work as a friend. The critical friend is an advocate for the success of this work (COSTA, KALLICK, 1993).

In our proposal, the critical friend can be a coach who works in the same place or close to the workplace of the coach who is taking the Beginners Course.







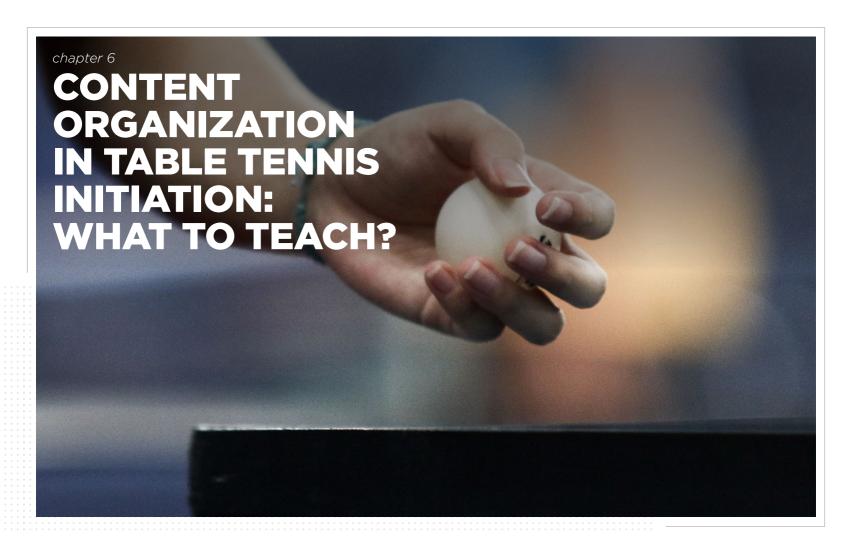
## **RESULT**

At the end of this module, the participants will be able to:

- Understand about the organization of content for Table Tennis Initiation;
- Understand the systematization of pedagogical procedures for Table Tennis Initiation;
- Reflect, know and discuss about; application of pedagogical content and procedures with a focus on effective communication as a competence to work as a Coach in Table Tennis Initiation;
- Evaluate, through self-reflection and peers sharing, the application of the components of this module along of 10h of Coaching Practice;
- Strengthen the rapport among the group of Table Tennis Coaches, establishing a network for sharing of knowledge and procedures.







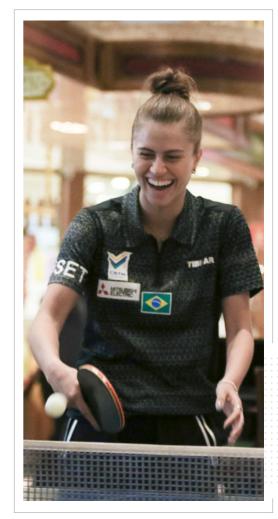


The organization is the first of the four pedagogical processes that must support the teaching-training of sports disciplines, followed by the systematization, application and assessment of pedagogical content and procedures. It is essential that coaches know how to organize and systematize their pedagogical practice so that the application of the contents is aligned with the sports program, and that the assessment provides subsidies for reflection and continuous improvement of their pedagogical practice (GALATTI et al., 2017b).

What to teach in Table Tennis Initiation? Thinking about the organization of pedagogical content and procedures leads us to answer this question. And module 1 of our course gives us a kick-start to that answer. First, our vision of Sports Initiation follows the path of diversification (CÔTE, BAKER, ABERNETHY, 2007; CÔTÉ, FRASERTHOMAS, 2007; CÔTE et al., 2009).

Second, the contents must contemplate the three references of sport pedagogy, namely: historical-cultural, socio-educational, and tactical-technical (MACHADO, GALATTI E PAES, 2014; MACHADO, GALATTI E PAES, 2015). And finally, we must have the highlevel table tennis game as a starting point for organizing content and pedagogical procedures related to the tactical-technical elements (GADAL, 2011).

Thus, selecting what will be taught should include content that refers to diverse activities and practices within Table Tennis and may also include content that refers to other sports that are more or less similar to Table Tennis. In addition, content that refers to fun and enjoyment of the game should be prioritized. Finally, participation in other sports should also be encouraged in other contexts of practice. This tends to increase the engagement of practitioners in sport in general and, consequently, in Table Tennis.





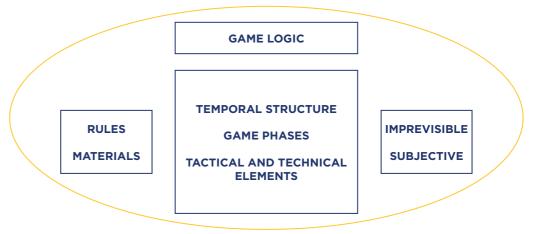
In order to list content related to historicalcultural and socio-educational references. we can initially be guided by guestions such as: "Which historical and current aspects of the sport are relevant?"; "What values and behaviors can this content involve?" (GALATTI et al., 2017b). The choices here can refer to content that addresses the main references of Table Tennis in Brazil and in the world, to the change of rules that has occurred in the sport over the years and the impact caused in the game, to the evolution of Brazilian Table Tennis in the last decade: the development of inclusion, autonomy and co-education, as well as the establishment of connections between what happens in the Table Tennis class and the life of this player in the community. We indicate the gallery of the Brazilian Table Tennis Confederation in the "eMuseu do Esporte" and the beginning of part 1 of the online course "Para Table Tennis: disabilities and development of autonomy" for the initial selection of contents related to the historical-cultural reference.

And the tactical-technical? What content to select for teaching Table Tennis for beginners with the high-level table tennis game as a reference?

An integrated view of the main elements of Table Tennis matches is presented in Figure 3 and we consider that this set should be considered in the organization of content and pedagogical procedures for Table Tennis for beginners. When we analyze the match,

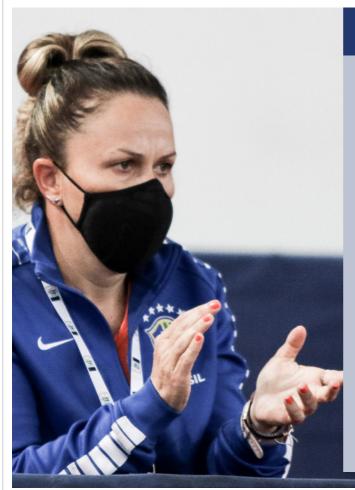
we show that your logic is related to hitting the ball to the other side of the table so that the opponent cannot return (BELLI et al., 2017). In addition, rules and materials (ITTF, 2020), temporal structure (SILVA, REINA, 2017a; SILVA, REINA, 2017b; ZAGATTO et al., 2010), game phases (MUNIVRANA et al., 2015) and unpredictability (GADAL, 2011) were detailed in module 1 of our course. We will now focus on the tactical and technical elements.

**Figure 3:** Integrated view of the elements of the table tennis match



Source: prepared by the authors





## 6.1 COACHES IN ACTION!

Hey, coaches...

Which tactical and technical elements are present in the Table Tennis match that we can list as content for Table Tennis Initiation?

For the development of this stage of the course, the following are suggested as a strategy:

- Select short excerpts (~ 1 min) of official Olympic and Paralympic (from different classes) women's and men's Table Tennis matches.
- The coaches watch the game excerpts and answer the guiding question with a colleague or in a small group.
- Make a conversation circle and discuss the responses of small groups collectively.
- List them on a board to be discussed and compared with the course content.
- Promote a moment of reflection about the tactical and technical elements listed by the coaches for the Paralympic game and the contents of Part 1 and 2 of the online course "Para Table Tennis: disabilities and development of autonomy".



## THE TACTICAL AND TECHNICAL ELEMENTS

#### 6.2.1 STRATEGY, TACTICS AND TECHNIQUE

Understanding what strategy, tactics, and technique is helps us to have the necessary clarity to use them in our practice with players in Table Tennis.

According to Galatti et al. (2017a) "... the strategy anticipates the objectives of tactical actions, which are instantaneous and will confirm or readjust strategic options; tactics, in turn, only materialize with specialized motor actions, the techniques. Thus, the three concepts are inseparable, with tactics being the factor that establishes the link between strategy and sports technique".

In this way, the **strategy** is what was previously planned, based on a set of data, to guide the set of actions in the game (GALATTI et al., 2017a). For example, what we plan to play against a given opponent from the analysis of his previous games and that will compose our previous repertoire of actions for that match.

We can hypothesize here the athlete planning to explore the left side of the opponent's table during the match, for having observed this as his opponent's weak point in past matches.

tactic. on the other hand. corresponds to the athlete's performance ability in constant and instant adaptation to the opponent during game situations, through the development of responses and motor actions - the techniques (GALATTI et al., 2017a). For example, during the rally an athlete observes her opponent's intention to move to the left of the table and positions the ball on the right side of the table, adapting her strategy, which was to exploit the left side of the table because it is a weakness of vour opponent. For this tactical action, the athlete performs a stroke called forehand topspin, adjusting spin and speed, in order to position the ball in the precise location and with the appropriate speed to displace her opponent and win the point.

Finally, we have the **technique**. Defined here as a set of rational motor actions that allows high levels of effectiveness to achieve a result - especially when applied efficiently - being regulated by the management of external factors, that is, the position of the opponent, the ball, ball speed, etc. (GALATTI et al., 2017a). Two important terms to conceptualize here too: effectiveness and efficiency. Effectiveness refers to the outcomes of the technique performed, regardless of how correctly this technique was performed (O'DONOGHUE, GIRARD, REID, 2013), while efficiency is related to how the technique was performed, so that this execution meets certain standards so that there is the lowest possible energy expenditure (WEINECK, 1999). And given this conception of technique, we can visualize it as a dynamic element during the match. like aforementioned forehand topspin, performed with a specific tactical intention from the analysis of the opponent's position. for example.





#### 6.2.2 THE SELECTION OF TACTICAL ELEMENTS

Munivrana, Furjan-Mandic, Kondric (2015) showed that **ball speed, ball placement and ball spin** are among the main tactical means for table tennis players to realize their own tactical ideas during the match. The studies of Malagoli Lanzoni, Di Michele, Merni (2011) and Qun et al. (1992) reinforce that these are important elements that table tennis players must master to play the game successfully. Gadal (2011 and 2020) adds the **height of the ball** (in relation to the net) to these elements and jointly calls them ball quality parameters.

Faster ball speeds can bring an advantage for the player to win the point, since this is related to the decrease of the time necessary for the ball to cross the table and, therefore, with a reduced time for the opponent's reaction (BELLI et al., 2019). Gadal (2011 and 2020) emphasizes that speed is the essence of Table Tennis, a key element of the game, being a fundamental and primordial parameter to reach the high level in our sport.

In addition, table tennis players use ball placement to avoid their opponents' preferred strokes, to prepare for a favorable game situation, or even to attack or defend in a way that they are unable to return the ball (BELLI et al., 2019). "The mastery of ball placement is one of the major differences between high-level players and others. To exemplify, we could say that the first ones systematically play on the lines while the others play everywhere, except on the lines!" (GADAL, 2020).

Ball spin can also be performed at any stage of the match and are determined by the player himself, according to the tactical intention during the rallies (BELLI et al., 2017). They have the purpose of making difficult the opponent's return (IINO, KOJIMA, 2009). Thus, the table tennis player can try to deceive the other through the spin combinations as well as through the amount of spin he applies to the ball, increasing the chances of the opponent not adapting to the spin and throwing the ball out or failing to hit it. (TANG, MIZOGUCHI, TOYOSHIMA, 2002; GADAL 2020).



"There are two ways to hit the ball: in the center or off center. When the stroke is performed towards the center, it is called 'flat ball' (no spin), however, when the stroke is performed close to its extremities, some type of spin/rotation is caused in the ball, called the spin. There are several types of spin during a match, the simple ones (topspin, backspin, left and right sidespin) and the combination between them (sidespin in conjunction of topspin or backspin, etc.)." (BELLI et al., 2017).

We highlight two key aspects related to these three tactical elements. First, they are interrelated. Ball speed is associated with ball spin and ball placement (GADAL, 2011). The spin is often used to increase accuracy in ball placement (QUN et al., 1992) while strokes become less accurate the faster they are executed (FITTS, 1954). Having this clarity will help you to develop these elements in an integrated way with your players.

Second, the intensity of these elements can be modulated. This aspect is known in Table Tennis as dosage and refers to the table tennis player's ability to explore a wide range of intensity of spin and speed (GADAL, 2011). For example, hitting balls more slowly and with less rotation than the opponent is accustomed bring the player a favorable condition to win the point. Who has never seen this happen during a match? The opponent accustomed to very fast or very spin balls, losing consecutive points earned by a player able to modulate/dose/

explore different intensities of spin and speed. This aspect must also be considered in the development of your training classes.

And **the height of the ball** appears as a fourth tactical element, since flight trajectories of balls with different heights in relation to the net can bring different levels of difficulty for the opponent to hit the ball (GADAL, 2020).





#### 6.2.3 THE SELECTION OF TECHNICAL ELEMENTS

All strokes in Table Tennis, except for service, are performed from a ball hit by the opponent, which can vary in speed, placement, spin, and flight path. Therefore, the player must use different variations of the same technique to respond to the opponent's ball (MUNIVRANA, FURJANMAN-DIC, KONDRIC, 2015). This view of technique therefore breaks with the concept that there is only a single ideal stroke pattern. And it understands techniques such as plastic, flexible (GADAL, 2011) and functional movements, which emerge from the interaction of players, environment, and task (GALATTI et al., 2019).

We are now going to learn about the main techniques of Table Tennis, which can be taught and trained based on this vision, which we can list as content throughout the Table Tennis Initiation process.

#### 6.2.3.1 Introductory techniques: Grip and Ready Position

We have 3 types of grips in Table Tennis.

In the shake hand grip, the player holds the racket with the palm of the hand, with the thumb and index fingers extended and positioned in parallel on the lower end of the rubber while the other three fingers hold the racket handle.

When the player strokes the ball on the side where the thumb is, with the palm of the hand facing forward, we call this stroke the forehand. When he strokes the ball on the side of the forefinger, with the back of the hand facing forward, we call this stroke backhand (MARINOVIC, IIZUKA, NAGAOKA, 2006).





In the penhold grip, the player holds the racket like a pen, with the thumb and index fingers surrounding the racket handle on the side of the racket that has rubber, while the other three fingers are located on the non-rubber side of the racket (MARINOVIC, IIZUKA, NAGAOKA, 2006). In this grip, the strokes of forehand and backhand are performed with the same side of the racket, the rubber side.

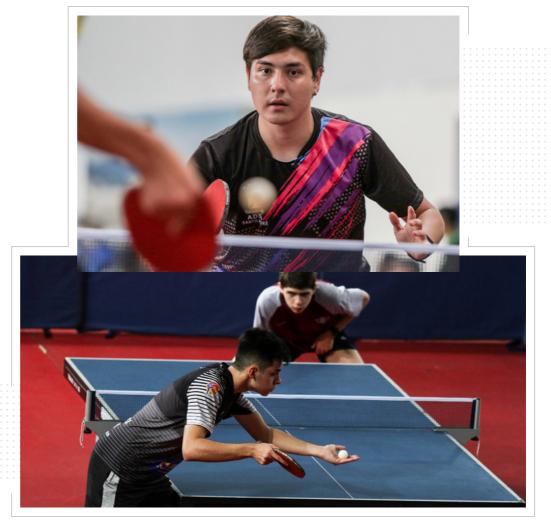








The ready position, also called the initial position, is that in which the player remains to receive the opponent's service. It is considered a favorable position, from which it is possible to hit balls coming from anywhere on the table. It is a very dynamic position, which the player will adjust and modify throughout his career (ITTT-HPD, 2020). In general, the legs are laterally apart (ie, hip abduction) with the feet shoulderwidth apart, the trunk slightly flexed, the knees and hips flexed, and the weight of the body being projected towards the front of the feet, the to guarantee balance and agility to hit the ball (TEPPER, 2007). The elbows are flexed, and the racket is positioned in a neutral way (ie, with the top facing forward or midway between forehand and backhand) and, usually at the height of the table.





#### **6.2.3.2 Strokes**

Serve: unique stroke in the game, in which the ball comes from the serving player, and not in response to the opponent's ball. The player therefore has complete control over how (i.e., which spin, spin combination, speed, and height of the ball) and where (i.e., ball placement - short, long serves, etc.) to play the ball. In Para Table Tennis, since the rallies are shorter, the serve is an even more valuable stroke (FUCHS, FABER, LAMES, 2019). The specific serve rules were discussed in Module 1 of our course.





Drive: stroke used in the attack phase, counterattack phase, and preparation of one's own and disabling the opponent's attack, performed without ball spin (MALAGOLI LANZONI, DI MICHELE, MERNI, 2013; MUNIVRANA, FURJAN- MANDIC, KONDRIC, 2015).

Topspin: stroke used in the attack and counterattack phases, which can be performed from a defensive ball with backspin (attack) or from an offensive ball with topspin (counterattack) (MALAGOLI LANZONI, DI MICHELE, MERNI, 2013; MUNIVRANA, FURJAN-MANDIC, KONDRIC, 2015).

Sidespin: strokes played in attack phase, preparation of one's own and disabling the opponent's attack, executed with side effects.







Block: stroke played in the defensive (passive block) or counterattack (active block) phases, performed in response to an attack stroke (MALAGOLI LANZONI, DI MICHELE, MERNI, 2013; MUNIVRANA, FURJAN-MANDIC, KONDRIC, 2015).

Backspin defense: defensive stroke, performed with backspin, in which the player is usually positioned in areas away from the table. Defensive stroke characteristic of defensive players, who exploit different intensities of spin looking for the opponent's error (TEPPER, 2007). The player can also explore combinations of spins during the execution of this stroke, to make the opponent's response difficult.



Chop, Backspin (Tsutsuki or Slice): stroke played in the preparation of one's own and disabling the opponent's attack, performed with backspin (MALAGOLI LANZONI, DI MICHELE, MERNI, 2013; MUNIVRANA, FURJAN-MANDIC, KONDRIC, 2015). The use of combinations of spins during the execution of this stroke increases its potential for ball placement in the most varied places on the opposing table.

Flick (Flip, Harau): stroke used in the attack phase, preparation of one's own and disabling the opponent's attack, performed when the ball bounces close to the net (MALAGOLI LANZONI, DI MICHELE, MERNI, 2013; MUNIVRANA, FURJAN-MANDIC, KONDRIC, 2015). A variation of this stroke, which had a more recent development in Table Tennis, consists of executing the stroke of backhand with a greater range of movement of the fist, regardless of whether the ball bounces on the right, middle or left of the table. This variation is known as "Banana".





Lop, Balloon defense (Lifting the ball): a defensive stroke performed when the player is far from the table (or close to the table. for para-athletes in classes 1 and 2), which consists of lifting the ball to a considerable height (MALAGOLI LANZONI, DI MICHELE, MERNI. 2013: MUNIVRANA. FURJAN-MANDIC, KONDRIC, 2015). The player can position the ball near the opponent's table end line with topspin, so that the bounce of the ball moves the opponent away from the table. Or you can even explore various effects to make it difficult to return your opponent. Stroke also performed when the player seeks to re-establish position in the playing area, to carry out a subsequent counter-attack stroke (TEPPER, 2007).

Smash: stroke played in attack phase, performed from high balls, characterized by a linear trajectory with no spin on the ball (MALAGOLI LANZONI, DI MICHELE, MERNI, 2013; MUNIVRANA, FURJAN-MANDIC, KONDRIC, 2015).





#### 6.2.3.3 Footwork

Footwork is important in Table Tennis, as they allow the player to be in a favorable position to hit the ball.

The footwork classification is described in the studies of Malagoli Lanzoni, Di Michele, Merni (2013) and Malagoli Lanzoni et al. (2019):

One step: movement made by taking a small step forward with one foot while the other foot remains immobile. It is a key step for the first stages of the rally, used to answer short serves by means of strokes such as flick and backspin;

Chassé step, Sideways steps: a lateral step that consists of sliding sideways first the foot opposite to the direction of displacement, and then the other foot. It is a displacement used to execute various set of offensive and defensive strokes.

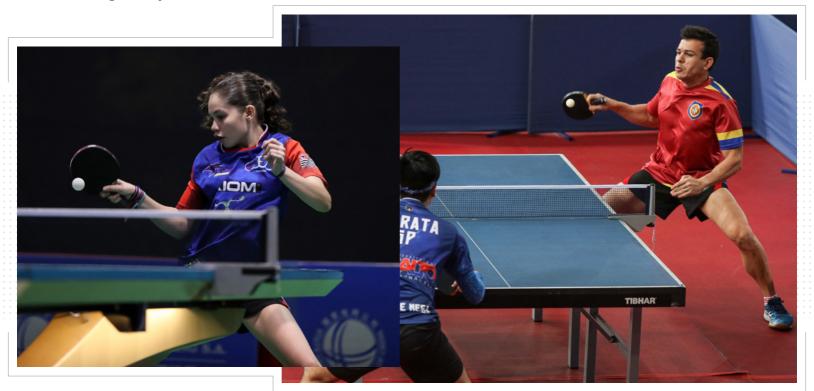




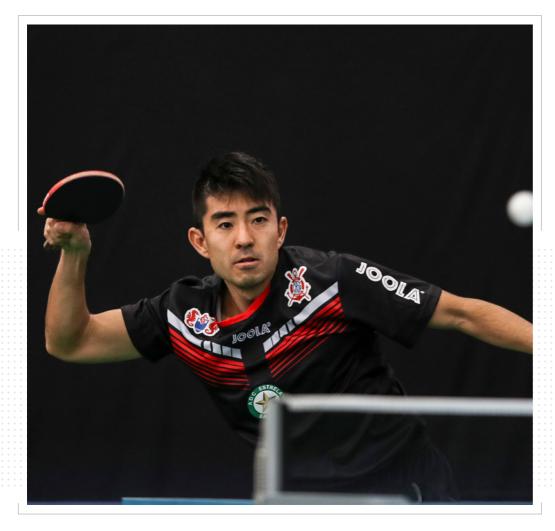
Slide step: a lateral step consisting of first sliding laterally the foot corresponding to the direction of displacement, and then the other foot. It is a movement generally used before defensive strokes, in unfavorable conditions during the rally.

Pivot step: includes a chassé or a slide step, in which the movement of the last foot to move is accompanied by a rotation of the trunk around the vertical axis. This footwork is used to perform forehand strokes in the

left or right corner of the table, for rightand left-handed players, respectively. Displacement widely used for topspin stroke (attack and counterattack).







Crossover: a wide sidestep carried out by sliding laterally the foot opposite the direction of displacement, and then the other foot. Due to the amplitude of its displacement, the first foot crosses the front of the second before completing the movement. This displacement allows the player to move for long distances in the shortest time possible.



The online course "Basic Table Tennis Techniques" presents details for the execution of different types of grips, ready position, serves without effect and with backspin, and strokes of forehand and backhand without effect and with backspin. In addition, it presents the sideways step, used in the transition between strokes of forehand and backhand. And in the backspin video it is possible to visualize the footwork of one step.

In addition, we can see in detail the strokes of topspin, block and flick in videos produced by Tibhar for the teaching-training of Table Tennis (TIBHAR ELEARNING, 2020).

We also highlight four key elements for the development of Table Tennis techniques, which Gadal (2020) calls the 'heart of the techniques'. To be relaxed, the use of the hand, the timing, and the ability zone.

Being relax: the strokes in Table Tennis integrate several movements (e.g.: elbow, wrist, hip, etc.), promoting muscle contractions in various body segments (e.g.: contraction of the muscles of the arm, forearm, pelvis, etc.). In view of the size of the playing area (table), it is important that the levels of these contractions are adequate as well as that the muscles that do not participate in these movements are relaxed, ensuring fluidity and effectiveness to the stroke.

Use of the hand: this element refers to the fist movements and the potentials that it brings in Table Tennis, to adjust the quality of the contact between the ball and the racket, to change the direction of the ball without giving any clue to the opponents and make variations that are hardly noticeable (GADAL, 2020).

Timing: The dispute for each point in Table Tennis happens through successive strokes and footwork, alternating moments of greater and lesser intensity of effort, which denotes the importance of rhythm in the game. Added to this, and in a more specific way, we can also think about the

rhythm related to contact with the ball, which constitutes a crucial aspect for the realization of the most varied strokes throughout a game.

Ability zone: Each player has a game zone where he is most skilled. There are players who perform more efficient and effective strokes when they are positioned at relatively long distances and others at very short distances from the end line of the table. Therefore, players need to perform at different game zones and, step by step, find the one in which they are most skilled at playing Table Tennis (GADAL, 2020).



# DEVELOPMENT CURRICULUM FOR TABLE TENNIS BEGINNERS

So far, we have highlighted all the organization of content and pedagogical processes that can make up the Initiation to Table Tennis phase. But what to teach in each age group/teaching unit to train this player?

On the High-Level Route, Gadal (2011) presents us with a development curriculum originally developed for French players. And the Initiation stage is composed of three tables, which are presented in a grouped manner in this document (Annex 1).

It is a curriculum in which we observe a large part of what we list for the organization of contents and pedagogical processes to be developed in the Introduction to Table Tennis.

We can observe the presence of the game and the fun. And also the presence of teaching based on the game of Table Tennis in its entirety, including the game logic (dealing with the opponent to try to win the point), the game phases (attack/counterattack, defense), the temporal structure (present in the competition), the tactical elements (ball spin and ball placement) and more tactical awareness, the technical elements (strokes and footwork) and more the "heart of the techniques" (being relaxed, using the hand, timing and ability zone) and, still, the demands of dealing with unpredictability (adaptation work and the competition itself). It is a valuable reference and an excellent starting point for the development of a Brazilian curriculum for the development of athletes and para-athletes.









The systematization is composed by the selection of teaching-training methodology to be applied and by the temporal division of the contents, including the practice plan. It is important that the curriculum includes both the organization and the systematization principles, so that both processes contribute to sustain the pedagogical coaches' practice in an objective and meaningful way (GALATTI et al., 2017b).

We will focus here on questions regarding the methodology for Table Tennis Initiation. The development of practice plan will take place in the next Module of our course. And, between these two stages, we recommend the online course "Pedagogical processes applied to Table Tennis" as an introductory content.

How to teach on Table Tennis Initiation?

Thinking about the methodological part of the systematization process leads us to answer this question. And the online course "Game-based and player-centered approach for teaching and training table tennis", developed between Modules 1 and 2, brings us a deeper look at this subject and ways for this answer. Shall we recall the main points discussed in the course?

We initially understood that we must diversify the teaching-training Table Tennis methods (GADAL, 2011). For that, we basically have the analytical-synthetic and global-functional principles. The first is known as technicist, in which teaching is based on fragmentation of the game into parts and is centered on the coach. The second, on the other hand, refers to game-

based teaching in its entirety and is playercentered (GRECO, BENDA, 1998). We know the first principle well, as it is traditional in our Table Tennis practice contexts. But what about the second? To better understand it. we deepen our look at Nonlinear Pedagogy as a teaching approach that supports classes' development game-based and player-centered. In this approach, the player takes the lead in its learning and the coach has an important role as mediator. And, last but not least, we comprehend pedagogical principles to elaborate exercises in the format of games (i.e. representative tasks) for the Table tennis teaching-training (GALATTI et al., 2019).

Let's put all this knowledge into practice now?



## **Z1 COACHES IN ACTION!**

Hey, coaches...

We challenge you to develop and apply games/representative tasks, based on the contents that we list for Table Tennis Initiation as well as supported by the game-based and player-centered teaching-training. Explore games applied to both Olympic and Paralympic Table Tennis.

For the development of this stage of the course, the following strategy is suggested:

- Create structured opportunities for coaches to develop one or more games with a colleague or in a small group.
- Request each pair or small group to select a developed game and apply it to the class.
- Promote a reflection moment about the games developed in relation to previously developed content, namely:
  - **a.** the integration between strategy, tactics and technique;
  - **b.** to the principles of Nonlinear Pedagogy (NLP) and Teaching Games for Understanding (TGfU);

- **c.** games that bring a smaller or greater logical approach and
- d. Coach's role in NLP.
- Propose a second round of game development and application, following the same initial dynamics. At this stage, coaches should record their application game phase. This recording will be used for the Effective Communication dynamics, following the course.
- Promote a final discussion, comparing the first to the second round and reinforcing the developed content.

Finally, to see more ways on how to diversify Table Tennis teaching-training methods for players with disabilities, we recommend Part 3 of the online course "Para Table Tennis: the disabilities and the development of autonomy". You will be able to note specific material adaptation issues for these players, as well as teaching based on motor skills as well as game-based and player-centered teaching, with examples of games for Table Tennis Initiation.







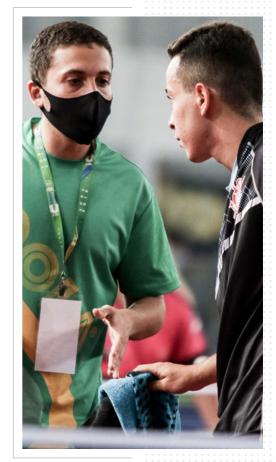
Recently, Costantini (ITTT-HPD, 2020) started a course at the International Table Tennis Federation (ITTF) evidencing communication as a basic competence for Table Tennis coaches. He pointed out that effective communication occurs when communication takes place in a **clear, direct, and simple way.** 

In an article also recently published, Martinent and Ansnes (2020) highlighted communication as a relevant skill for Table Tennis coaches and presented us with a list of six important elements for effective communication: **Be clear, concise, correct, complete, courteous and constructive.** Ensure that the information is presented clearly, take care not to miss the message for making it too long, share true and non-misleading information, give all the information and not just part of it, be polite and non-threatening and be positive (DOMINTEANU, 2014).

It is also important to differentiate communication by offering feedback: motivational feedback important is ("Good!!!"), but it is often insufficient: what was good? We also often use expressions such as "it's wrong", "you failed again". but we are not precise in indicating what is wrong, nor in encouraging athletes to identify the error and guide in the search for more appropriate ways to solve the problem. Especially in training situations, the informative feedback has a very valuable educational role.

For this, **planning communication** before communicating with athletes can be a valuable resource. Set aside time for this planning and consider (DOMINTEANU, 2014; HOCKEY AUSTRALIA, 2020):

- **Why** do you want to communicate? What is your objective?
- Who do you want to communicate with?
- Where and when can the message be best delivered?
- What do you want to communicate?
- How are you going to communicate the information?





And when we think about communication related to learning in Table Tennis Initiation, we often think about its potential to be more assertive to **explain and demonstrate** a technique or even to offer a **feedback** to the player during the movement execution. Which is correct and very important, but it is still too little!

"Communication is one of the most important skills a coach can have. It is not just about being able to demonstrate skills and knowing your sport's tactics. It is about creating a relationship with the person in front of you. Knowing what makes them turn up to your session each week and understanding what motivates them to keep turning up" (EDWARDS, 2015).

Following, we present a series of key points for the coach to communicate effectively when explaining, demonstrating, observing, analyzing and making decisions and providing feedback (NSSU-ICCE, sd)\*

#### How to explain:

- 1. Plan what to say in advance
- 2. Gain attention before starting
- **3.** Keep it short and simple and explain more than once
- **4.** Make sure everyone understands and invite questions

## How to provide demonstration, if necessary:

- 1. Everyone must see and hear
- **2.** Do not talk too much while demonstrating
- **3.** Provide demonstrations at different angles, focusing on 1 or 2 aspects
- **4.** Make sure everyone understands before going to practice

We emphasize here that demonstration is quite used when the information transmission from the coach to the players occurs. On the other hand, it is necessary to reflect whether the demonstration is really necessary in a player-centered approach. It can make it easier to highlight something that the player is not able to do or is not doing, but it is also a means that offers an answer, a solution that was not offered by the player. Before demonstrating, it is important to think about whether you, as a coach, are unable to verbalize otherwise. An interesting alternative is to record (with a cell phone) the player making the movement and explore, from the video, other motor responses better than those observed in the video.

\* NSSU-ICCE is an international Coach Developers academy, headquartered in Japan by the Nippon Coach Developer Academy in partnership with the ICCE (International Council for Coaching Excellence), as part of the Olympic legacy of Tokyo2020. These ideas are presented in the online modules of this course, developed by Penny Crisfield, an ICCE educator.



### How to observe:

- 1. Look at the whole action
- 2. Focus on one part, phase or point at a time
- **3.** Observe from different angles as necessary
- 4. Observe several times

### How to analyze and make decisions:

**1.** After observing, decide what to reinforce, modify or point out, based on your planning.

## How to provide feedback:

- **1.** Promote self-analysis: What did you notice about...?
- **2.** Limit your contributions: 1 or 2 key points
- **3.** Give simple and objective information in a positive way
- **4.** Check understanding: What you going to do now?





Finally, we highlight two more important aspects for effective communication. First, there are three types of communication: verbal communication (i.e., the content of your message: the words you choose), paraverbal communication (i.e., how you say what you say: the tone, pacing and volume of your voice) and nonverbal communication (i.e., your body

language) (DOMINTEANU, 2014; HOCKEY AUSTRALIA, 2020). All three types of communication must be used consciously for effective communication. Second, communication takes place in a two-way street, in that speaking and listening are important. Regarding this last point, we present some points of attention for an active listening:



- stop talking (you can't listen while you are talking);
- engage in one conversation at a time, empathize with the person speaking;
- ask questions; don't interrupt; show interest, concentrate on what is being said (actively focus on the words, ideas, feelings of the speaker);
- look at the speaker (even without vision people can tell whether you are facing them or not); do not jump to conclusions;
- control any anger you feel; react to ideas, not to the speaker;
- Share the responsibility for communication; get rid of distractions (including pen and paper)"(HOCKEY AUSTRALIA, 2020).

Have you ever stopped to think if, in addition to speaking well, you also know how to listen properly?



# 8.1 COACHES IN ACTION!

Hey coaches:

J. FANCK

TÊNIS DE M

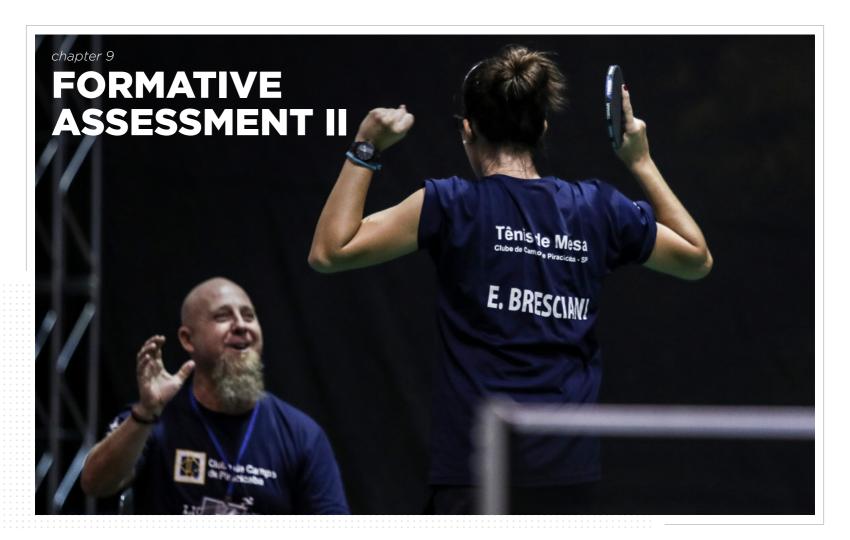
How do you communicate with your players so that it evolves throughout the process and starts to have basic mastery and autonomy to play Table Tennis and, at the same time, so that it is motivated to continue attending your classes?

For the development of this stage of the course, the following strategy is suggested:

 Organize the coaches in pairs or small groups and ask them to watch the recording of the games applied in the previous dynamic (item 7.1) and analyze how the communication took place.

- Promote a moment of collective reflection on the communication observed in the games in relation to the content developed, especially in relation to the key points for the coach to communicate effectively when explaining, demonstrating, observing, analyzing, and making decisions, and providing feedback.
- Propose a second round of application of games with a focus on effective communication.
- Promote a final discussion to compare the first with the second round and reinforce the content developed.







This course stage begins with a brief presentation and discussion of the Report developed by each coach for the Module 1, through a Conversation Circle.

And for the evaluation of Module 2, we propose two instruments (NSSU-ICCE, 2016-2017) to be developed during your 10 hours of Coaching Practice through self-reflection and discussion with the critical friend, namely:

### A. CONTINUE, START AND STOP:

Reflect about the organization and systematization of pedagogical procedures as well as on the application of these contents, with a focus on effective communication, in your Table Tennis classes.

#### And list:

- 1 to 2 aspects that you think you should reinforce and CONTINUE to do;
- 1 to 2 aspects that you would like to START to do;
- 1 to 2 aspects that you think are not as effective for the Initiation process and that you should STOP doing.



### B. ARE YOU A GOOD LISTENER? SELF-ASSESSMENT SUGGESTION:

WHEN SOMEONE IS SPEAKING, I						
	ALWAYS	FREQUENTLY	RARELY	NEVER		
I am able to clear my mind of everything and give 100% of attention to the speaker						
find my thoughts wonder onto what I want to say						
finish people's sentences for them						
interrupt while they are still speaking						
worry about the time passing						
wonder what I'm going to do next						
eager to jump in and tell them my experience or point of view						
MY STRONG POINTS:	MY WEAK POINTS:					
MY GOAL:	MY ACTIONS TO ACHIEVE IT:					







## **RESULT**

At the end of this module, participants will be able to:

- Develop and apply practice plans for Table Tennis beginners as well as being able to reflect and evaluate their own didactic choices, considering the processes of organization, systematization, application, and assessment.
- Know and develop competition models applied to Table Tennis.
- Know the knowledge and competences established by the International Council for Coaching Excellence, to discuss and reflect on them based on what has been developed throughout our course.









We understand in Module 2 of our course that the step of <u>systematization</u> of pedagogical content and processes includes both the selection of the teaching-training methodology as well as the planning of the contents throughout the classes (GALATTI et al., 2017b). Bearing in mind that we have already dealt with issues related to the methodological part, we will focus here on the development of **practice plans**.

In addition to being a fundamental tool for temporally distributing the listed contents, the practice plans fulfill the role of showing consistency with the selected methodology and with the vision outlined for this sports development phase. In this way, the plans contribute in an objective and significant way to the adequate application and evaluation of pedagogical contents and processes during our classes.

And to begin the outline of practice plans, it is important to have clarity of what we list in the <u>organization of contents and pedagogical processes</u> stage for Table Tennis Initiation. Figure 4 presents an integrated contents view that we selected for this phase, which includes the three references of Sport Pedagogy, and it is based on the Table Tennis match elements. Key points related to these contents can also be seen in this Figure.

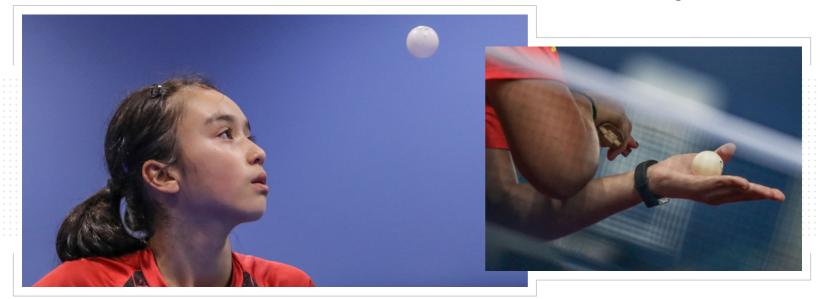
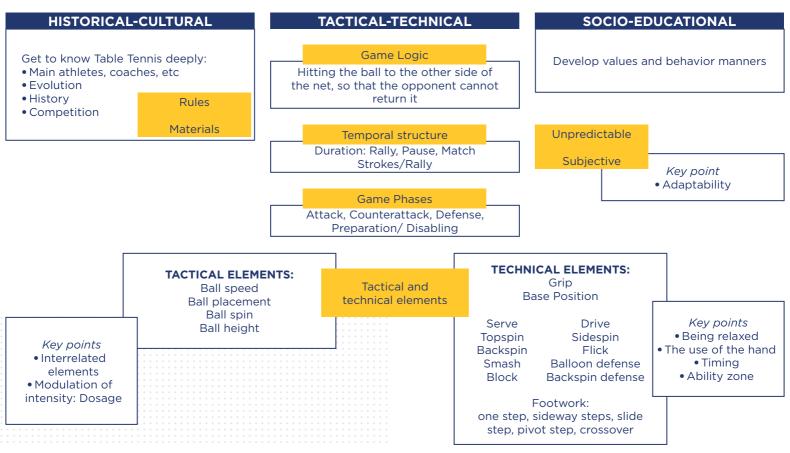




Figure 4: Integrated view of content organization for Table Tennis Initiation



Source: prepared by the authors



And how to distribute this content throughout our classes? As a starting point for the tactical-technical reference, we can take as a base the training curriculum for table tennis players proposed in the High-Level Route (GADAL, 2011) and presented in Annex 1. We can observe, for example, that the ball placement is allocated right in the first stage of this curriculum. Dealing with spin and developing the technical elements are among the contents considered in the subsequent phase, as well as tactical awareness and learning/love of competition. These last ones, contemplating the development of the logic and temporal structure of the game. Adaptability activities, all footwork and game phases are examples of content presented in the third and final phase proposed by the author for Table Tennis Initiation.

It is important to highlight that the curriculum must serve us as a parameter or starting point, as already mentioned, and not as an inflexible instrument. Furthermore,

we need to be clear about adding to this curriculum the temporal distribution of the contents related to the historical-cultural and socio-educational references in Table Tennis Initiation.

Another fundamental aspect is to show consistency in our practice plans with the vision and methodology that were outlined for Table Tennis Initiation. The key words to always keep in mind regarding our vision are diversification of practices and sports. fun and pleasure in the game (CÔTÉ. BAKER, ABERNETHY, 2007; CÔTÉ, FRASER-THOMAS, 2007: CÔTE et al., 2009: GADAL. 2011). Regarding the selected methodology, we show that we must diversify the teachingtraining methods (GADAL, 2011), adding the current approaches to the traditional teaching of Table Tennis. Our attention point here is to keep in mind the player-centered and game-based teaching that represent the Table Tennis match, in which the coach assumes the role of mediator (GALATTI et al., 2019).

We list vet another relevant aspect to outline our practice plans: the variation in the organization of the teaching-training sessions beyond a predetermined and usually applied sequence. For example, how about starting with the game, which would normally come at the end of your teaching-training session? According to Gadal (2011), the variation in the organization of the sessions is important both to change the routine and for you to understand how your players deal with a new situation. This proposal is lined with the nonlinear teaching approach, in which you select the best sequence of exercises for your teaching-training session depending on the needs of your players and not through a pre-established hierarchical order (GALATTI et al., 2019).

And now, let's put this set of knowledge into practice?



## 10.1 COACHES IN ACTION!

Hey, coaches...

We challenge you to develop, reflect and apply practice plans for Beginners to Olympic and Paralympic Table Tennis.

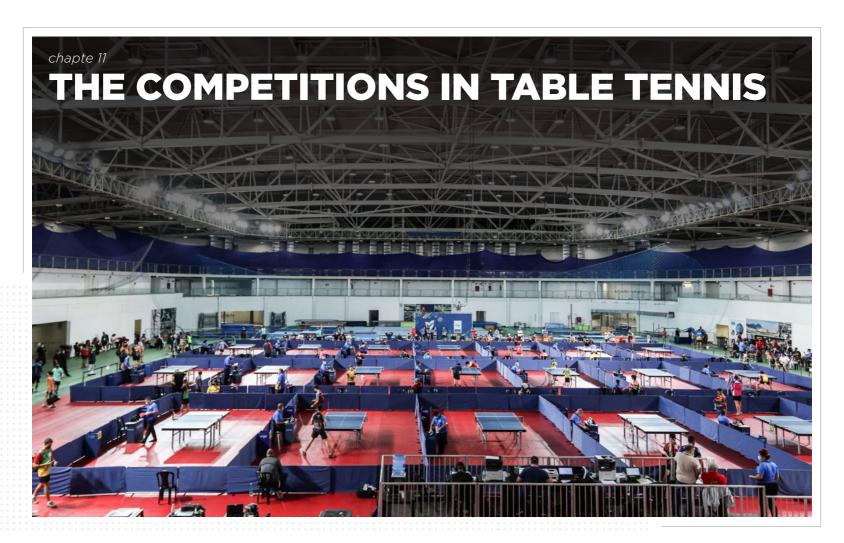
For the development of this stage of the course, the following strategy is suggested:

- Create structured opportunities for coaches to develop a practice plan with a colleague or in a small group. The goal of developing specific plans for Olympic or Paralympic Table Tennis (with certain physical or intellectual disabilities) is distributed among the pairs/groups, or even a unified practice plan for both public.
- Promote a moment of reflection about the lesson plans developed in relation to previously developed content, namely:

- **a.** the contents listed as well as the vision and methodology outlined for Table Tennis Initiation:
- **b.** the practice plan presented in the online course "Pedagogical processes applied to Table Tennis";
- effective communication as a competence to work as a coach in Table Tennis Initiation and
- **d.** to contents presented in the online course "Para Table Tennis: the disabilities and the development of autonomy".
- Request that each pair or small group adjust their practice plan, if deemed necessary, and present it to the class by applying a selected section.

- Propose a second round development presentation/ and application of practice plans. following the same initial dynamics. In this stage, the coaches must develop two more practice plans: one from the previous teachingtraining session and another from the teaching-training session following practice plan initially developed.
- Promote a final discussion about the three practice plans developed for Table Tennis Initiation. Discuss and reflect on the facilities and difficulties for the development of practice plans.







In Table Tennis, we have the individual (women and men), doubles (women, men and mixed) and teams (women and men) competitions. In national events, players compete distributed by age (for example: pre-child for athletes up to 9 years old to veteran 70+ for athletes 70 years old or more) and by rating (A to O) in the Olympic categories. In the Paralympic categories, players compete according to their classes (i.e., class 1 to 5 for wheelchair players, classes 6 to 10 for standing and class 11 for those with intellectual disabilities). It is worth adding that para-athletes can participate in both Paralympic and Olympic events (CBTM, 2020b).





Regarding the <u>system of play</u>, usually the initial stages take place through the <u>group stage</u> followed by the <u>play-off phase</u>, with the possibility of the event being held exclusively by one or the other phase. In the group stage, everyone plays against everyone, in groups consisting of 3 to 5 table tennis players. The best of the groups goes on to the play-off phase, in which the athletes are allocated in a knock-out system (i.e., single-elimination) according to their placement in the groups. In case there are only 3 to 5 athletes registered in a certain category, this can occur exclusively through the group

stage. On the other hand, for example, team competitions take place exclusively through the knock-out system. (CBTM, 2020b).

In team competitions, there are several team match systems. These can comprise disputes of up to 3, 5, 7 and 9 matches, including exclusively individual matches or individual and doubles matches performed by means of various order of play systems (CBTM, 2020b., ITTF, 2020). For national events, for example, the Olympic team competition takes place with best of 5 matches and the order of play follows

the Corbillon Cup system (4 singles and 1 doubles): Match 1: A versus X; Match 2: B versus Y; Match 3: Doubles; Match 4: A versus Y and Match 5: B versus X. The Paralympic team's competition takes place with best of 3 matches, and the order of play is: Match 1: Doubles; Match 2: A versus X; Match 3: B versus Y Each team, both Olympic and Paralympic, shall consist of 2, 3 or 4 athletes (CBTM, 2020). The selection of the players (for example, player A, B, X, Y) must be made by each team before the team match and handed over to the responsible referee (ITTF, 2020).





We can observe until now the universe of elements related to the competition that we can explore during our classes for beginners. In addition to the traditional individual matches, we can propose doubles matches including boys and girls in the same match, team matches exploring the most varied team match system and so on. But this universe is even broader. We can promote, for example, an individual match, but played by 3 versus 3 players, so that there is a mandatory alternation of players throughout the match (for every 4 points played, for example).



"Team competition, with alternation of participants during matches. Without distinction of sex. Team members who are not playing can act as coaches, referees and/or ball players. Everyone must perform all roles";

"Skills/abilities competitions: precision, power, agility, consistency/regularity, etc."

"Competition with handicap. Putting advantages on the scoreboard and even in positions/functions (e.g., only one player serves in a given match)";

"Competition with a different table format (forming a Z, using three tables, two horizontally and one vertically)".





Competitions of skills and abilities as well as competitions in which players act as referees make up, for example, the competitive model of the TT Kidz program of the Table Tennis England. This is an introductory programme to Table Tennis for children aged 7 to 11, developed over 8 weeks in clubs and schools in England. The aim of this program is to provide children with a first experience in sport that is inspiring and that promotes engagement and fun (TT KIDZ TABLE TENNIS ENGLAND, 2020). And the option of diversifying competitions plays a very important role in achieving these goals.

To better support these ideas, we will present two model proposals that refer to diversification and competitive participation, which aim to provide a positive development of children and young people in sport.

The first proposal is the "Diversified Competitive Models", presented by Klering

et al. (2021) with a focus on racket sports. It includes a cycle that does not have competition as an end, but as a structuring element in the process of sports development and citizenship of children and young people. In this cycle, children must participate in the process of creating competitive activities, proposing models and formats for dispute. It is up to the referees, coaches, and parents to play the role of mediators and drivers of the proposals coming from the players. This contribution of the children is fundamental for the development of intrinsic motivation as well as for the exercise of their autonomy. In addition, children experience victories, defeats, jovs, and frustrations inherent in all sports competition. The authors also denote that this constructive process can generate significant learning and development related to multidimensional aspects (i.e., cognitive, psychomotor, social, affective, moral) and provide opportunities for reflection about the competition experienced.

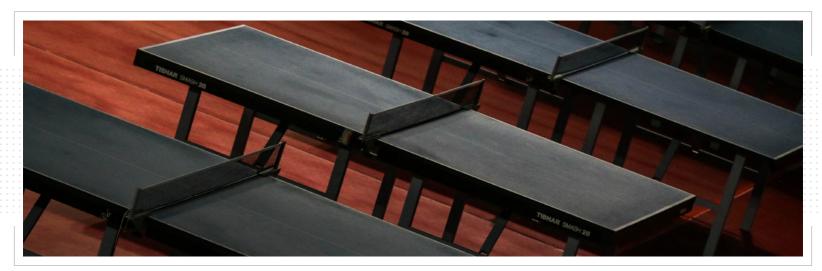


The second proposal is the "Competitive Participation Model", presented by Leonardo, Galatti and Scaglia (2017) for sports in general. This model is supported by a relationship between the Developmental Model of Sport Participation (CÔTÉ, BAKER, & ABERNETHY, 2007; CÔTÉ & FRASER-THOMAS, 2007; CÔTE et al., 2009) and the Rating System for Youth Sport Programs, the latter based on 4 competitive levels (WIERSMA, 2005). In view of this integration, the authors propose that the competitive participation process must

start from competition proposals similar to levels 1 and 2 in the sampling years (6 to 12 years of age). And as the investment years approach (15 to 17-18 years of age), the participation of players in level 3 and 4 competitions will gradually increase. But how are these levels characterized?

Level 1 is characterized by the absence of formal competition, with modifications of equipment/environments being conducted due to low levels of momentary skill. At level 2 we already have the presence in

an organized format with scores, tables, and results (wins and losses), typical of a formal competitive environment. However, our emphasis must be maintained on the process, that is, on the development of skills for the sport. Level 3 is marked by the competitive season and the emphasis on the most skilled players, with the presence of trips and selection of athletes. And finally, level 4 is characterized by a commitment to annual competitions, aiming over the years to reach achievements in sport (LEONARDO, GALATTI, SCAGLIA, 2017).





We usually think of the competition as an end or, still, as an evaluation tool of the teaching-learning process of the players. Moment in which it is possible to observe if the training is promoting the development of the table tennis player, through the analysis of their competitive results. On the other hand, what we think little about and as we saw in the examples and models presented here, is that competition makes up part of the teaching-learning process (KLERING, et al., In press). And this expanded view in relation to competitive models can be decisive for us to assertively explore all its potential in our teaching-training sessions.

Leonardo, Galatti and Scaglia (2017) also highlight the relevance of coaches' behaviors being aligned to a positive development of children and young people in the competitive context, avoiding the concept of victory at any cost and promoting an environment that promotes social values like empathy, feeling of justice, cooperation and healthy competition in the

pursuit of victory. And they also present us with a series of guidelines to the coach can broaden the competitive scenario without distorting the competition, transforming it into an integral content of sport development of young people. Among them, we highlight the promotion of internal competitions, friendly matches, festivals, and events that bring together players at different competitive levels.

"It is through the close relationship between the functions of the coach and the possible changes to the competitive scenario that a new concept of competition can be developed, extrapolating his understanding as a purpose, according to the traditional view, and elevating the act of competing to a content of sport development, in order to transform competition into another important learning reference, as well as technicaltactical, socio-educational and historicalcultural references." (LEONARDO. GALATTI, SCAGLIA, 2017).





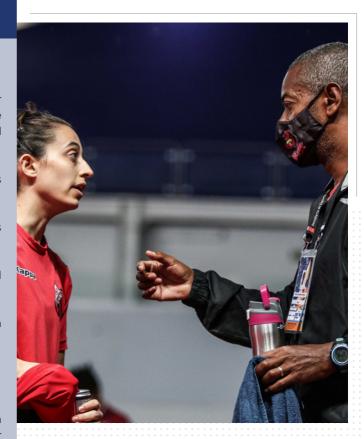
## 11.7 COACHES IN ACTION!

Hey, coaches...

We challenge you to propose competitions that can be applied in your teaching-training sessions of Table Tennis Initiation. And to provide opportunities for these competitions to be unified, integrating athletes and para-athletes.

For the development of this stage of the course, the following strategy is suggested:

- Create structured opportunities for coaches to develop competitions with a colleague or in a small group.
- Request that each pair or small group present the competition proposal to the group of coaches.
- Promote a moment of reflection about the competitions developed in relation to previously developed content, namely:
  - a. to categories and system of play;
  - **b.** to doubles and team matches (multiple team match systems) and
  - **c.** to models that refer to diversification and competitive participation.
- Promote a final reflection on the relevance of effective communication in the competitive context. How do you communicate with your player in the competition?





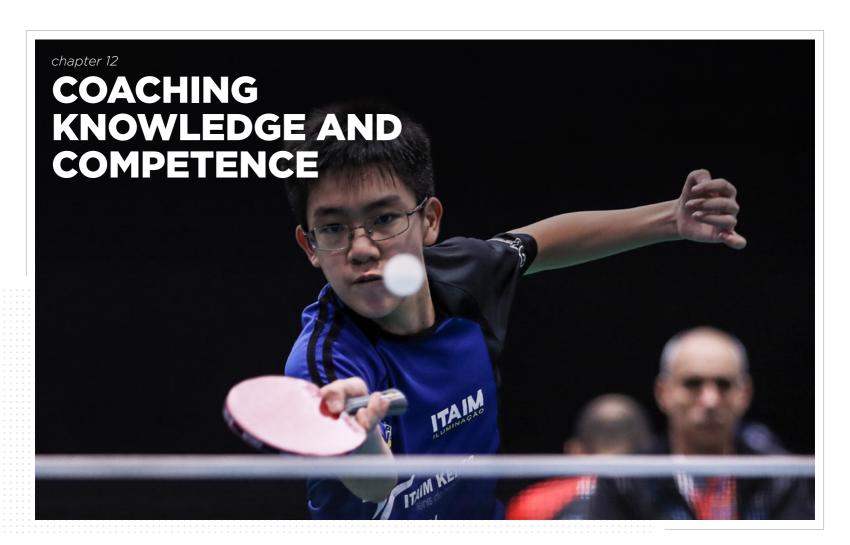








Table 2: Competencies Framework of the International Council for Coach Excellence

#### **PRIMARY FUNCTIONS**

## **COMPETENCES**

SET THE VISION AND STRATEGY

SHAPE THE ENVIRONMENT

**BUILD RELATIONSHIPS** 

**CONDUCT PRACTICES** 

**READ AND REACT TO THE FIELD** 

**LEARN AND REFLECT** 

Source: ICCE, ASOIF, LBU (2013)

Understand big picture;

Conduct analysis of needs of athletes/practitioners;

Establish the goals of the work according to the context and the athletes/practitioners;

Organize a safe training environment;

Create action plans;

Define success criteria for athletes/practitioners;

Lead and influence;

Communicate effectively;

Manage relationships;

Guide athletes/practitioners in training and competition;

Employ different training methodologies according to the context and athletes/practitioners; Organize competitions;

Evaluate training and competition;

Analyze the performance of athletes/practitioners and teams;

Make adjustments to the training and competition process;

Develop the coaching philosophy;

Engage in professional development

Self-reflect and self-monitor



In the first column of Table 2, six primary/ main functions related to the practice of coaches are listed. We can observe that the listed functions dialogue with the pedagogical processes evidenced throughout our course. 'Set the vision and strategy' and 'Shape the environment' are associated with the Organization and Systematization steps, respectively. 'Build relationships' and 'Conduct practices' are associated with the Application stage while 'Read and React to the Field' and 'Learn and Reflect' are associated with the Assessment stage.

To be effective in their performance, competences are required from coaches, which can be developed throughout their personal and professional trajectory: for each of the six main functions, the second column of the ICCE Framework suggests specific competences, which are sustained by three areas of knowledge: professional knowledge, interpersonal knowledge, and intrapersonal knowledge. Professional knowledge is associated with the specific contents of a sport (as

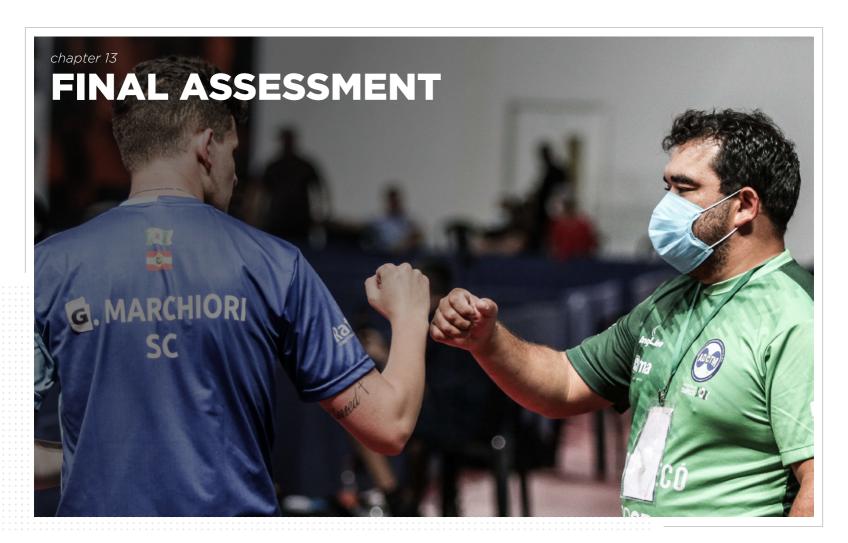
tactics, techniques), as well as the basic sciences that support them (pedagogy, physiology. biomechanics. sociology. etc.); interpersonal knowledge is related to the ability to establish relationships and connections with people (primarily athletes, but also with family members, coaching staff, managers, referees, investors, etc.) being closely related to emotional intelligence; and intrapersonal knowledge is more associated with himself/herself, the coach, and it is based on experience, self-knowledge, being strongly supported by the capacity for reflection (ICCE, ASOIF, LBU, 2013).

Proposals like the one represented in the ICCE framework are very valuable and help us to organize our understanding of complex topics, such as the roles and competencies of coaches. However, considering especially the interpersonal knowledge, we have to understand that it is a global and more generalist proposal: you, the coach, need to be able to establish, throughout your practice and trajectory, the knowledge you master

and those in which you need to advance; the competences that you recognize in yourself and would like to strengthen; and those that you need to invest more and get support to develop better.

Remember also that your practice and the expression of these competences are contextual: taking for example only the competence of "Guide athletes/ practitioners in training and competition", the way this happens with a child in the process of initiating sports or an adult in the same step they can be very different. Even more so if we compare the context of sports initiation to the context of high performance: if in initiation we want to engage practitioners in a fun way and with learning that increases competence for the game, in high performance there is a mandatory search for the best result and maximum performance; therefore, coaches lead practitioners in training and competition in very different ways in the two contexts, and in this last stage our Beginner Course this must to be very clear to all of us.







This stage of the course begins with the presentation and discussion of the Assessment Report developed by each coach for the Module 2. For this, the coaches will be divided into smaller groups. If possible, include a facilitator to mediate the groups. After the presentation and discussion of the Report takes place within the groups, a leader from each group should list the main aspects discussed and bring it to the moment of final reflection. The latter will take place by means of a Conversation Circle bringing together all the coaches.

And for the evaluation of Module 3, the following activities are proposed:

- a. the development of four practice plans for Table Tennis Initiation, consisting of a sequence of two plans for Olympic Table Tennis and a sequence of two plans for Paralympic Table Tennis. Remember to specify categories and/ or classes of disabilities covered.
- **b.** the application of the plans developed during his 10 hours of Coaching Practice.
- c. in this 10-hour final stage, take advantage of each class to complete the Reflective Card for Coaches at the end (Table 3). The purpose here is to promote an assessment of how

was the performance of your players, your own performance, and aspects to improve in the development of the next practice plan: remember, not only in relation to the skills linked to the professional knowledge base, but also in the interpersonal and intrapersonal. The card shown in Table 3 is an example, it is essential that you choose the points to be observed that make sense for your training session, for the athletes involved and for your own growth as a coach.

**d.** prepare an Assessment Report to be delivered at the end of this process

including the practice plans developed, a synthesis of the reflections made in the application of the practice plans (from the reflective cards) and their final considerations. The Report may be presented by means of written material, a video, or a slide show, with coaches and trainers agreeing on the model that best suits each cohort for each course offered. Examples of each of these presentation formats will be offered. The Report will be delivered by the coaches online. The trainer of that cohort will be responsible for analyzing the Reports delivered and providing online feedback to the coaches.



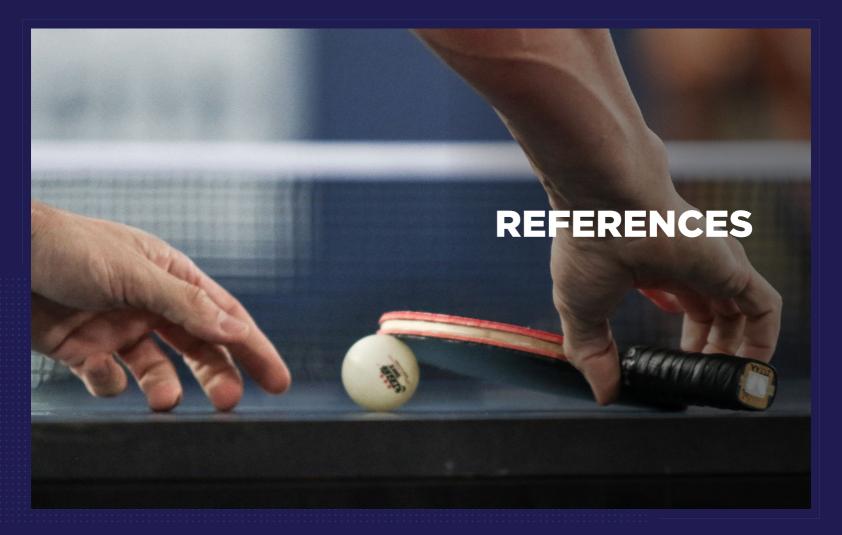
Table 3: Reflective Card for Coaches.

REFLECTIVE Date/											
PERFORMANCE OF ATHLETES			MY PERFORMANCE AS A COACH								
	Mediocre	Passable	Good	Very good	Excellent		Mediocre	Passable	Good	Very good	Excellent
Empathy	1	2	3	4	5	Observation	1	2	3	4	5
Execution	1	2	3	4	5	Communication	1	2	3	4	5
Tactical	1	2	3	4	5	Judgment	1	2	3	4	5
Technical	1	2	3	4	5	Team work	1	2	3	4	5
WHAT'S THE MAIN FOCUS FOR TODAY?											
How did I feel? Feelings and emotions											
How was the performance of the players?											
Were the players' behaviors and my behaviors consistent?											
What was challenging?											

Should this session be repeated?	Yes	or	No	
What should I do next?				

Source: adapted from Rodrigue and Trudel (2018)







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	<b>INITIATION</b> Age: 6 to 7 years Duration: 6 months to 1 year	<b>LEARNING</b> Age: 7 to 9 years Duration: 1 to 2 years	IMPROVEMENT Age: 9-10 to 12 years Duration: 2 to 3 years
TECHNICAL-TACTICAL	<ul> <li>Discovery of the activity.</li> <li>Cultivate the "smart" and "combative" side of the player.</li> <li>Ability Zone search.</li> <li>Use the Ball Placements.</li> <li>Return the ball playing at different points in the trajectory.</li> <li>Identify the game space.</li> <li>Notes:</li> <li>Take care of the quality of the material.</li> <li>Vigilance for a good racket.</li> <li>Take care to throw the ball on the forehand and backhand side in front of you.</li> </ul>	<ul> <li>Master the actions on the ball: strike, brush, push</li> <li>Address the learning of technical elements.</li> <li>Balance between the strokes of FH and BH.</li> <li>Domain and identification of Effects.</li> <li>Ball control.</li> <li>Tactical awareness.</li> <li>Play on different ground lines (Zones)</li> <li>Use of the hand.</li> <li>Rhythm to contact racket with the ball</li> <li>Notes:</li> <li>Vary training sessions.</li> <li>Vary training partners.</li> </ul>	<ul> <li>Master all the elements of table tennis dealing with the opponent.</li> <li>Adaptability work.</li> <li>Important work for all footwork</li> <li>Notes: <ul> <li>Working time: <ul> <li>the forehand and the backhand</li> <li>the "pro" and "counter initiative" contexts (when serving and receiving)</li> </ul> </li> <li>Work of the different game phases: <ul> <li>offensive (attack, topspin, etc.).</li> <li>defense raised, etc.).</li> </ul> </li> <li>For all strokes, take care of: <ul> <li>of the rhythm;</li> <li>the moment of ball contact;</li> <li>of using the hand.</li> </ul> </li> <li>Play regularly against top level players.</li> </ul> </li> </ul>



	INITIATION  Age: 6 to 7 years  Duration: 6 months to 1 year	<b>LEARNING</b> Age: 7 to 9 years Duration: 1 to 2 years	<b>APERFEIÇOAMENTO</b> Idade: 9-10 a 12 anos Duração: 2 a 3 anos
MENTAL	<ul> <li>Focused attention.</li> <li>Pleasure of the game.</li> <li>Learn to focus.</li> </ul> Notes: <ul> <li>Short sessions with breaks.</li> <li>Short exercises: approximately 5 '</li> <li>Play calmly and in silence.</li> </ul>	<ul> <li>Increased concentration.</li> <li>Competition learning.</li> <li>Love the competition.</li> <li>The child is involved in his training.</li> </ul> Notes: <ul> <li>More numerous sessions.</li> <li>Exercises duration as a function of concentration.</li> </ul>	<ul> <li>Be positive.</li> <li>Keep concentration more and more</li> <li>Analyze your serves / participation in competition.</li> <li>Develop concentration skills.</li> <li>Develop the effort associated with fun</li> </ul> Notes: <ul> <li>Competition:</li> <li>before the match;</li> <li>psychological management of the match;</li> <li>after the match.</li> <li>Learning the basics:</li> <li>Know how to relax;</li> <li>Know how to visualize.</li> </ul>



	INITIATION Age: 6 to 7 years Duration: 6 months to 1 year	<b>LEARNING</b> Age: 7 to 9 years Duration: 1 to 2 years	<b>IMPROVEMENT</b> Age: 9-10 to 12 years Duration: 2 to 3 years
PHYSICAL	Mobility     Warm-up: games of persecution and opposition.     Proprioception: discovery.	Like the effort. Understand the importance of physical preparation. Flexibility. Coordination. Proprioception (educational)  Notes: Flexibility. Coordination. Muscle relaxation.	Begin to work on certain qualities required for the practice of table tennis: speed, flexibility, muscle awareness.  Notes: Speed work. Improve reaction time. Flexibility Stretching Posture work.

Source: adapted from Gadal (2011)



