

Module 3. The impacts of communication on the sports environment

Unit 3.1 Fundamentals of communication

Introduction

In this section, we will look at some of the factors that impact the fluidity and comprehension of communication between different parties. It is important to work on communication, because a message can have multiple interpretations when there are communication interferences.

One of the most important communication methods in sports training, both for trainers and athletes, is body language or non-verbal communication. Communication will generate different types of responses depending on how it is interpreted.

Tools will be shared in this reading that are useful for trainers and sports psychologists looking to improve their verbal and non-verbal communication.

Paul Watzlawick states that "One cannot not communicate". With this statement, the Austrian psychologist affirms that in human interaction all behavior communicates a message. This shows that there is no such thing as non-behavior or anti-behavior, just as it is not possible to not communicate, we are always communicating something.

Theories of human communication state that communication problems between people, on most occasions, are due to speakers not sharing the same point of view. Theories that focus on interaction conceive communication as an open system where messages are exchanged through interaction.

A lack of adherence to certain rules of communication causes mistakes in mutual understanding and patterns of pathological interaction. These axioms are:

- **One cannot not communicate:** communication not only occurs through words, but also through facial expressions, gestures, and even through silence.
- **Content and relationship:** human communication happens on two levels, one is content - what is verbally transmitted and that is subject to non-verbal communication. The relationship aspect, that is to say, the relational aspects of messages change according to how the receiver interprets the content. For

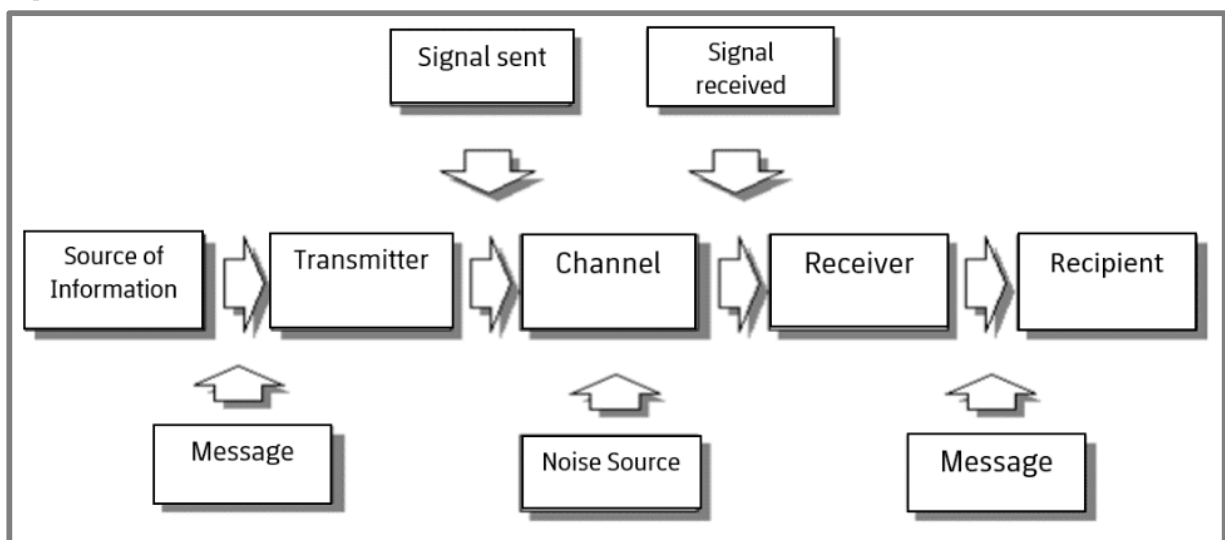
example: a message can be said in an ironic tone, which will modify the reception of the message.

- **Digital and analog modality:** the analog modality generates a quantitative transmission of information (the message is or is not transmitted), whereas in the digital modality, the message is qualitative (the interpretation of the message sent out).
- **Punctuation gives meaning:** during communication, subjects only concentrate on their own point of view, which on occasion, leads them to think that there is only one correct interpretation of facts, because the point of view of whomever is speaking is ignored.
- **Symmetrical and complementary communication:** if two subjects possess the same information on the topic they are talking about, it can be said that communication is symmetrical. This refers to the relationship that exists between two speakers. And in the case that the speakers possess different knowledge, we are talking about complementary communication.

Drawing from this premise, there is always communication. Before looking at tips or concrete tools to improve communication in sports, it is important to understand some fundamental concepts in the communication process from a new perspective.

One of the most influential **information theories** was introduced by Claude E. Shannon and Warren Weaver at the end of the 1940s. In this theory, the **factors of communication** acquire a relevant role (transmitter, receiver, source, channel, message, and code).

Figure 1: Communication Theory



Source: Shannon & Weaver, 1949.

Next, we look at what the different factors represent, to better understand the communication process.

- **Information source:** The message selected based on the multiple messages received.
- **Transmitter:** starts the process, produces a certain number of words or gestures that form part of the message to be transmitted. Although initially the transmitter will primarily be the trainer, on numerous occasions, the athletes themselves or members of the coaching staff will be the ones who will initiate communication. A good deal of the success or failure in the communication process will depend on role of the transmitter.
- **Receiver:** this person's function is to decode the message that was transmitted and transferred through the channel, to be transcribed into language that is intelligible for the true receiver or recipient. Aside from the usual receivers present in the actual interaction, in the sports world, we should note that there is usually another group that receives a lot of information and whom we should keep in mind: the fans or supporters of our teams. This can be clearly seen during press conferences given by coaches of high level teams or on an athlete's social media.
- **Channel:** means through which communication is transferred between the transmitter and receiver.
- **Message:** refers to everything that is sent. This can be a word, a signal, etc.
- **Signal:** message codified by the transmitter.
- **Noise source:** refers to possible interferences that may affect the information source.

Once the different factors that intervene in a communication process are known, we can make this process more effective.

An important aspect to highlight is that, in a communication process, not only does the agent who sends the message (transmitter) intervene, but the person who receives the message (receiver) also plays an active role. In this back-and-forth between the transmitter and receiver, there are a number of important points to consider, for example: most of the responsibility for an effective communication is taken by who sends the message; when the transmitter does not consider who will receive the message, instead of communicating, they are just informing.

An example of this is coaches who see their way of communicating as unchanging, and thus, if an athlete does not understand a message, it is the athlete's responsibility. The opposite scenario would be a coach who understands that their predominant communication style reaches some athletes but not all; and thus, they develop new strategies to adjust their message in order to reach everyone. This is a fundamental and frequently observed practice, and demonstrates the coach's interest in evolving and adapting to the complexities of communication.

3.1.1. Communication styles

It is important to note that when the transmitter sends a message, not only is verbal communication produced, non-verbal communication also takes place at the same time. There are two types of communication. Even though verbal communication is given more relevance, if non-verbal communication is not used and suitable attended to, serious issues can arise with whomever we are trying to interact.

The differences between verbal and non-verbal communication extend beyond action versus speech. Looking for congruence and coherence between these two types of communication will be essential for maintaining credibility amongst players and the coaching staff.

Verbal communication

Based on verbal communication, reference can be made to two components, linguistics (vocabulary, syntax) and paralinguistics (rhythm, tone, and volume).

In the context of training, there may be a physical trainer who talks too fast (a problem with rhythm) or a trainer who speaks too loud (a problem with volume) - two of the most common examples that tend to be observed in verbal communication. In this case, the person responsible for sending the message must work on at least one of these variables, whether a linguistic or paralinguistic variable, based on the needs of the receivers.

Regarding verbal communication, as communicators, what is said needs to be congruent with what is intended to be said. The question to be asked here is: What does the person want to communicate and how they communicate it? In this sense, the following must be taken into account:

- Defining what you want to communicate and structuring the message in such a way that the receiver will be able to understand it. The elements for a clear message are: set communication objectives, determining a common ground between what is said and the receiver's knowledge, use visual resources, don't provide excessive information, summarize the main ideas in a few words.
- Select a set of signs that support the transmission of the message. In this case, linguistic methods are most typical.
- Choose the means through which the message will be sent and use the appropriate mean, depending on the context, content, and objective of the message. The predominant channel is auditory; however in sports, the visual channel often

dominates during competition. Gestural language is a heavily used communication strategy in this context.

The message not only has a stated intention but also an implied one. For example, when a messenger inadvertently exposes a lack of experience in the subject matter, which conflicts with their verbal message.

The transmitter is responsible for communicating the message in an environment where the receiver can exchange information and where the transmitter can observe if the message is erroneously interpreted.

Non-Verbal Communication

Both verbal and non-verbal communication supplement and overlap each other. It is argued that non-verbal communication, depending on the situation, can reinforce what is verbally said, contradict it or override it, as well as regulating communication between parties.

Additionally, body language has intercultural interpretations that characterize specific regional customs. Non-verbal language includes movements of the face, body, hands, the space where a person is located, attitude, demeanor, and physical appearance. Some of the characteristics of non-verbal communication are:

- It has multiple interpretations.
- It transmits a large amount of information to others.
- It is part of verbal content.
- Each culture has particular characteristics.

Five categories of non-verbal communication can be mentioned, namely: emblems, illustrators, regulators, adapters, and affective displays. We will review each one in detail:

- **Emblems:** gestures capable of substituting a word. They are specific to each culture and they transmit a communicative objective.
- **Illustrators:** movements executed with the arms and hands, which are related to or accompany speech.
- **Regulators:** gestures that regulate speech or reflect listening and establish a conversational rhythm. Head and eyebrow movements are frequent when a certain topic is being listened to or talked about.
- **Adapters:** movements developed during childhood with the intention of satisfying needs, controlling emotions, and instigating social contact.

- **Affective displays:** body or facial expressions which show emotion; happiness, sadness, fear, etc.

3.1.2 Non-verbal communication and sports

Next, we will introduce a communication style used in sports, called the non-verbal communication (NVC) code. This code refers to the communication used between team members with the objective of not being interpreted by their rivals, so as to conquer a series of strategically designed situations that will positively influence the results of the match.

Praxemes:

Understood as a sign inserted in a code, where the signifier is a set of praxiomotor conditions and the meaning is a set of praxiomotor objectives that are associated with it. An example of a praxeme is a check away in football.

Gestemes:

A set of attitudes, mimics, gestures, and motor patterns used to transmit a question, indication, or a tactical or relational order as a simple substitution for a word.

It is important that coaches manage communication with players assertively and that they insist that the players use that same communication style between each other. Not just assertive in terms of spoken word, but assertive in motor expressions, too. Players must keep in mind that their movements are non-verbal ways of communicating, therefore the aim should be for their movements to be understood by their teammates, who can then come to their aid.

Paraverbal Communication

Not only do we have to use words carefully, but also all other phenomena that accompany the voice in language must be managed well to ensure that the message is clear. This includes sounds and noises made with the voice and the coordination between breathing and talking.

The voice corresponds to 40% of the impact of a transmitted message. Trainers must master communication in terms of quality, fluidity, and domain. These variables that will make the message clear. Some guidelines follow:

- Enunciate clearly.



- Use different tones of voice. Just as in everyday use, for example, to reflect different moods. Master raising or lowering tone depending on the message that is intended to be transmitted.
- Emphasize messages using energetic or intense tones of voice, as relevant.
- Use pauses and silences to control sounds as a communication strategy. Be careful with pauses which may create doubt for the other person, since the message could be misinterpreted. During speech, the right words need to be found in order to not create doubt.
- Control emotions for better speech. Intonation is an emotional state indicator and often, it may not be the words that are interpreted as hurtful, but the tone in which they are said.
- Don't use circumlocutions and avoid raising your voice uncontrollably to whatever extent is possible.
- Control breathing, which is an indicator of voice control.

Body and facial movements are a form of communication. Depending on what is trying to be communicated, words can be paired with gestures or facial expressions that confirm or deny what is being said. In training, coaches and players share a universe of gestures and non-verbal communication. There are training methodologies to develop non-verbal communication codes which are used during competition so that rivals cannot interpret communication.

Sports psychologists can observe all the gestures used by athletes and coaches during their conversations and, based on this, are able to perform the relevant analyses. Then, during individual or group sessions, they will be able to work on them.

How much of what is thought or felt during particular moments is transmitted through body language? In the case of a soccer match, if the coach is not satisfied with the team's performance, it will be shown in his body language; players observe this and their anxiety levels increase, bringing about a corresponding decrease in performance. All of this can be a consequence of body language. In the opposite scenario, when performance is optimal, this is also evident in both the players and the coaches.

3.1.3 Gestural and body language

In the field of kinesthetics, body language is studied to successfully interpret the messages transmitted by the body through its different parts. The body has a vast potential for communication and expression.

In teaching and learning situations, a constant exchange of information occurs between coaches and athletes. These messages are transmitted verbally and also through body language. They can be divided into the following categories:

Gestures and movements: during communication, it is necessary for some of the ideas that are intended to be transmitted be expressed with the body so that they make it to the receiver. The expressive displays of the body don't always correspond to what is intended to be communicated, and, on occasion, this may generate confusion. Regardless, communication should not be stereotyped and expressionless, instead, emotional impulses should be controlled so as not to distract or confuse the sender. Coaches and sports psychologists, should take advantage of the body's ability to communicate and develop some of the following skills:

- Know how to use facial expressions as communication resources, understanding the appropriate time to use them, like during competitions or training sessions. Each situation calls for a different way of delivering speech that is accompanied by gestures which enhance or neutralize it.
- To strengthen a message, nodding is recommended. Additionally, nodding can be used to show approval for an athlete's actions. Athletes interpret these gestures and experience an increase in confidence and motivation.
- Use eye contact and individualizing it for each athlete when that athlete is speaking directly to us. This produces a sense of visibility and makes them feel part of the team. Not looking at an athlete, on the other hand, generates a sense of indifference, and can be demotivating as well as producing other negative effects. Care should be taken with maintaining eye-contact for too long, since it could increase an athlete's anxiety levels. Body language should be used in a fair, dynamic, concrete, and inclusive way.
- Use gestures that indicate feelings of affection, assurance, support, and openness. Don't let negative emotions overwhelm the moment since this will not help players feel secure.

Body posture: body movements are one of the clearest forms of non-verbal communication. They have a direct relationship with emotional states: open postures indicate happiness and closed postures can indicate sadness.

Muscle tone is a silent and incorruptible witness to everything that happens to us.

During communication, participants receive an implicit message through body posture. Interpretation depends on two factors: **orientation** and **body attitude**. Orientation expresses the level of inclusion given to the audience. Body attitude, on the other hand,



generates information in terms of predisposition (favorable or not) to the other speakers. Based on this, sports coaches must take the following into consideration:

- Position your body in such a way that it includes all athletes. Avoid turning away since this can be interpreted as indifference.
- Prioritize audience-facing orientation more than at an angle. Facing the audience facilitates communication.
- Pay attention to the body posture that athletes exhibit since this can indicate discomfort or disagreement with the coach's message.

Body contact: body contact as communicative reinforcement is not frequently used, only on certain occasions. These gestures are subject to variables such as age, gender, confidence level, personality, etc. For athletes, affective signs such as a slap on the back, generate feelings of trust and confidence.

Cultural characteristics are some of the variables that most condition this body language. Coaches must consider the following criteria:

- Whenever possible, try to make sure that social constraints don't limit contact as an affective display.
- Do not force contact to show approval, aim for it to be natural and spontaneous.
- Observe how the athletes behave with each other and their body contact.

Coaches should keep these suggestions in mind that are targeted at communicating through the body. The objective is to master speech so that the message is correctly interpreted and to accompany this speech with the ability to manage your body.

Communication is how we reach other. Sports psychologists must teach coaches these skills, and they should also plan how they use these skills themselves. The coach and the sports psychologist must understand that their communication style forms part of planning, since, as we have previously seen, speech generates diverse interpretations and reactions in others.

Communication style is related to athletic performance. Coaches who do not control their emotional levels generate high anxiety levels in athletes. Whether it be during competitions, training sessions, or communication with parents; how an idea is transmitted should follow logical criteria and have coherence between verbal and body language.

As previously noted, with soccer or basketball matches, for example, a coach is visible in the coach's box and we can see an endless number of gestures, arms movements and



body movements. In most cases, coaches are not completely aware of how much information they continuously send through gestures. How many times has a coach been seen calming down his players while running on the sidelines. It is a priority to be coherent between the message we send on verbal and non-verbal levels, so that the message is interpreted without ambiguity.

Figure 2: Body Gestures That Accompany Speech



Source: Zeit online, 2017, retrieved from goo.gl/mFePNY.

In the image, we can see how different body language is interpreted both by players and fans. Managing body communication is a useful tool to accompany verbal communication

The psychologist Paul Ekman dedicated much of his research to analyzing facial expressions. He asserted that facial expressions of emotions are not determined by culture but are rather universal, and therefore have biological origins.

The importance of this type of communication is such that we could have an athlete that just joined the team who comes from a different culture sitting on the bench, and even though they might not know the language, they are able to interpret a large quantity of the messages sent through observed gestures.

Visual Language

Makes reference to signals and eye contact. In the next image, we can see how a basketball player signals his teammates to communicate the strategy to be followed. This resource is heavily used in sports and, in most cases, it will be the coach's responsibility to give these signals content and make sure that all the team members understand their meaning.

Figure 3: Visual Language



Source: Barcelona Edition, 2018, retrieved from goo.gl/ckzM5X

Indicating a possible play

Eye Contact

This will allow the person sending the message to complement the information transmitted or elaborate on its content.

3.1.4 Information theory

Information theory or the mathematical theory of information is the first scientific approach to the communication process. It arose from the need to understand the channels through which information is transmitted. It studies how human beings can transmit ideas, or in other words, how one mind can influence another.

During a communication process, there are three different levels that can be distinguished: technical, semantic, and pragmatic. At the technical level, the process of security with which information is transmitted between the sender and the receiver is studied. At the semantic level, whatever is related to interpretation and the meaning of what is being transmitted is studied. And at the pragmatic level, this addresses what causes the message, its influence, or effectiveness.

Types of Communication during Training Sessions

Plested, Vallejo & Londoño (2004) argue that verbal communication is incomplete. Body language correlates more strongly with what is intended by speech than speech.

Effenberg (1995) introduced the concept of *sonification*, which is understood as the transformation of movement into acoustic sounds. This is expressed by understanding that linguistics are not complete at a communicative level since they fragment communication. However, non-verbal speech, due to being packed with semantics, is

considered more complete. Sports training is a context that has specific characteristics which must be considered for the communicative interactions between the coach and the athlete.

In a study, soccer coaches were monitored to determine communication styles during training sessions. The following characteristics were considered:

- The coach's position in front of the group.
- The use of body segments during speech: hands, arms, and body posture.
- Ways of delivering paralinguistic instructions.

In sports contexts, such as in soccer, there are visual, body, auditory, and oral communication styles. There are multiple communicative expressions which are developed in the training environment and, furthermore, during competition. Thus, the coach must consider the factors that may distort their message: from how they face the group to their eye contact.

During training, there are back-and-forth communications between the coach and the athlete. Frequently, we can see arm and hand movements used to motivate, indicate positions, and point out specific places to occupy, accompanied by verbal speech to reinforce the content of the message. Such discourses are considered intentional semiotic processes, which means that they are oriented to particular and specific things. The coach needs to master discursive skills in order to ensure that athletes interpret their messages correctly.

The coach is responsible for managing their communication style so that the athlete clearly understands their messages.

Unit 3.2 Tools for improving communication

Introduction

In the next unit, we will explain how trainers can manage their communication style and how it influences the teaching-learning process.

In sports, science has focused on developing training methods aimed at improving physical, psychological, emotional and other skills. In the sports training field, there is little research into how the coach's communication style may impact the athlete's cognitive structure.

Communication is one of the ways that an athlete can be guided towards developing knowledge, discovering their own potential, and solving problems during matches. Thus, it is particularly important to understand how explanations should be given and how to use resources to improve them.

The coach has different roles in a sports organization. Their most important role is to educate and shape athletes. Pedagogical communication is generated between the coach and the athlete since it is an educational process. This concept of pedagogical communication can be adapted to sports organizations and defined as:

the interpretation between the trainer, the parents of the athletes, and with all those people who, in some way or another, exercise educational influence over the athletes, in other words, the pedagogical collective, political organizations, other peers, families, etc. (Márquez Rodríguez, A. en Valcárcel Izquierdo, 1995.

Communication between two subjects (the coach and the athlete) is transformed into an active and pedagogical process because it occurs in a sports organization with educational purposes. As mentioned, it is an active process since one subject is teaching or training the other; it is not done passive because the other participant's reaction cannot be predicted during the communication process. During communication, not only is knowledge exchanged, but also emotions and feelings and reactions are generated between the participants.

Since birth, the human being is immersed in a context where relationships with others is facilitated by communication. Relational skills come from the ability to manage communication. Education must deliver tools to improve and enhance this skill in people. Understanding the athlete's language, both during training sessions as well as competition and beyond the sports realm, helps the coach to assess the subject's real

feelings, emotional states, and state of mind, which in turn will inform how they communicate with the athlete.

The transmission of knowledge occurs through dialog between the coach and the athlete. A dialog is defined as:

"An organized and systematized exchange, which allows for the transmission of knowledge and implies assessment and construction of new knowledge" (Ojalvo, 1995, p. 15).

Since sports is a means through which skills (knowledge) are obtained, dialog between those involved in the process become important and require in-depth study.

3.2.1 Communication as a teaching-learning process

Communication must be stimulated during the learning process, since it's that which encourages a creative and reflective mind, the stimulus to the athlete finding forms of expression and self-learning. These variables generate improvement in athletic performance because good communication between athletes and between athletes and the coach increase the possibilities for learning.

The communication model adopted in training should be active, where the exchange of information between the coach and the athlete is not linear (only the coach as a transmitter) but instead, is back-and-forth. This active model is reflected in planning that is adapted to the individual interpretations of each participant engaged in the process. The coach does not hold the 'true' information, but rather, knowledge is constructed through dynamic interaction between everyone involved. The coach guides the process and has tools available to help the athlete, but knowledge is created by everyone. This leads to a dynamic communication style.

It should be noted that, in interactions, not only do the coach and athlete participate, but also family members and other members of the sports organization. This complex relationship process calls for the need to carefully manage dialog between parties in a harmonic way to avoid misunderstandings.

Based on the pedagogical criteria reviewed, the coach must rely on the socio-psychological contact they have with the athlete through communication. This type of relationship is established between the coach and the athlete through communication, it motivates them to engage in learning processes, and fosters psycho-pedagogical situations for the team to reflect on training plans.

The socio-psychological mechanisms present in communication are grouped as follows:

- Sympathy and attraction.
- Empathy and identification.
- Contagiousness and imitation.
- Suggestion and persuasion.

The social relationships that result from communication use language as a par excellence resource. In the sports field, non-verbal communication also has great significance as a means to build relationships. During educational interactions, language influences the development of cognitive processes and the athlete's personality, in addition to also being related to the shaping of the moral conscience and therefore, the subjects' behavior. Ultimately, communication is integral to a person's development.

3.2.2 Communication and sports

Communication forms part of the process of evolving the consciousness, as a result of the complex relationship between subjects and their contexts. Communication mediates these relationships and evolution generated the need to perfect communication styles due to its influence on the formation processes in people.

In educational communication practices, the coach pursues an instructional objective for which necessary knowledge is possessed in order to successfully develop the practice under an intentionally organized structure. In this case, the coach is educated and trained to organize interventions in contexts where communication will be used to impact athletes.

Coaches and their Language

In order to establish good communication in sports, a coach uses verbal and non-verbal communication. When using words, both intonation as well as arguments and foundations should be taken into consideration for technical and tactical explanations. A coach's body language is visible through physical displays and, during competition, through the instructions given. Care must be taken when using an authoritarian tone when giving instructions since it may stir up defense mechanisms in athletes. Yelling and scolding during formative stages are counterproductive when acquiring new knowledge. Athletes, when presented with these communication styles, don't respond very well.

When coaches adopt behaviors and communication styles associated with unreflective authority figures, athletes are likely to react from areas of the brain that encourage them to flee. How a person communicates generates multiple reactions in the receiver. The

structures of the nervous system that are stimulated by different communication styles must be taken into account.

Communication and the Brain

Coaches must be aware of the three systems that govern human behavior: the instinctive, the emotional, and the reflective. Each one responds to different areas of the brain. Communication style has a direct influence over which area of the brain is activated depending on the coach's communication methods. Hence the importance of understanding these systems when communicating.

System Features

- Instinctive system: territorial and defensive boundaries. Does not know how to deal with new situations and is influenced by personal and cultural factors. Offers up resistance to change.
- Emotional system: capacity for learning, curiosity and play. It has a direct relationship with long-term memory. Activating this system during communication makes it possible for content to be stored in the memory. Emotions are determinants in learning.
- Reflective: corresponds to the pre-frontal lobe, the most evolved lobe in the human brain. Interprets facts, provides the capacity for understanding and introspection and encourages creativity.

The pre-frontal lobe is what defines us as human beings and fights against more primitive impulses that still govern many aspects of behavior. The cognitive functions of the pre-frontal lobe include sustained attention, creativity, logical reasoning, language, and memory.

Communication, if it is used correctly, generates cognitive stimuli that activates the pre-frontal lobe and supports learning. At the same time, these cognitive stimuli strengthen the executive functions of:

- Control over emotional impulses.
- Long-term planning.
- Increasing empathy.
- Increasing altruistic drive.

When faced with certain actions, human beings may use any of the previously mentioned systems. When it comes to training, the reflective system stimulus tends to be given priority through interventions in which the use of language plays a fundamental role.



Both the instinctive and the emotional system respond almost spontaneously in a situation, this response happens within 125 milliseconds versus the 500 milliseconds that the reflective system takes to respond. This means that the more primitive systems are stimulated more quickly in certain situations. In sports, given the intensity and speed at which some actions happen, it is important that the trainer master their use of language to make sure that athletes don't respond to primitive signals, but rather to reflective ones. As mentioned, an authoritative communication style and negative tone generate an impulse to flee in the nervous system, which doesn't leave room for productive learning. The coach's communication style is a determining factor in the consolidation of long-term learning. A coach's way of working should encourage a predisposition to operate under the reflective system's command.

When there is a positive communication style and learning environment, dopamine production is stimulated, which consolidates learning in the memory. At the same time, dopamine in the pre-frontal lobe stimulates acetylcholine, which supports concentration and attention. All this generates a work environment with appropriate and positive levels of communication and a low level of threat. This is especially important in the formative sports training stages.

The information previously reviewed is criterion for the coach to take into consideration when it comes to communicating and generating learning opportunities. We are often unaware of what can be generated by the way we communicate. In response to this, scientists are studying how a human being responds to what is heard and consequentially how this impacts their behavior.

The coach is responsible for the athlete acquiring the knowledge they need for the sport they practice. This includes sports skills, technical-tactical knowledge, decision-making, etc. A trainer's verbal communication is focused on providing information and feedback.

Initial information

Corresponds to the moment before the task, with the intent of providing information on the task. There are different ways to communicate information about a task prior to a match in order to achieve competent action.

Pieron (1999) divided up this initial information according to what was being communicated:

- **Communicating the objective:** the trainer communicates the reason why the task needs to be learned.
- **Communicating the content:** this is information about what the athlete must do. In this case, the information can be conceptual, procedural, or attitudinal.

- **Communicating the technique:** refers to instructions about how to perform the task. Additionally, it includes organizing space, time, and the players. It contains instructions that refer to the scenario in which the training session or competition takes place. The organization of the environment prior to motor execution.

Initial information from the trainer comprises of the objectives to achieve, the operation to perform, and the conditioning of the context and the materials. The objective of initial information is to clear up any doubts about what should be done.

When trainers don't communicate this beforehand, it is left to the creativity of the athletes to make decisions about how to complete a certain action.

Feedback

During training sessions and once the game has begun, the coach can intervene with the players through instructions (general or specific) about what the coach wants to correct, suggest, or modify, with the intention of generating feedback for the athlete. Sanz (2003) posits that there are several kinds of *feedback* that can be differentiated according to their intentions:

Specific: refers to a concrete instruction during the learning process in which it is intended to intervene. These are subdivided into:

- **Descriptive:** detailed information is provided about how to execute technical skills. In the case of an error, a concrete action is the focus and an explanation is given.
- **Explanatory:** provides information about the reasons for errors.
- **Evaluative:** qualitative feedback on what was performed is given along with an explanation for why the actions occurred.
- **Prescriptive:** information is given about how future actions should be performed.
- **Interrogative:** the player is questioned after an action was executed, with the aim of reflecting on what happened, creating play awareness, and preventing possible errors.

Nonspecific: communication which is related to affective or emotional displays to the player, generally oriented to giving words of encouragement.

The information that the coach provides (at the beginning, during, or when a training session has ended) should have practical application with the objective of improving the athlete's performance. The coach's instructions will differ depending on the specific teaching moment or training phase. Cardenas (1999) defines these phases:

- Situation planning phase: even if the player has yet to begin the proposed activity, the coach can already start to work with the subject about understanding the



game. As this phase occurs prior to the task, general, exploratory interventions are recommended for the athlete, especially in formative stages. The aim of this pre-task work is to activate the memories of players about what is to be performed and their prior knowledge about the task. They can be asked about how the task to be performed was previously worked through.

- Provocation phase: the goal of the coach is for the athlete to think of possible resolutions to the situations they will face. This activates the athlete's thoughts beforehand with regard to the subsequent action. This practice promotes the athlete's prior cognitive engagement.
- Presenting new alternatives: the trainer poses questions to the athletes to direct them towards the objective that they are hoping to achieve in the task to be performed. This can be used as part of initial information, during, or once the task has been completed. In opportune moments, the trainer intervenes and asks the athlete how they should proceed in performing a specific motor action.
- Reinforcement phase: the information that is presented is directly geared towards the task to be performed. The athlete's motor repertoire is clearly explained prior to the subject's own reflection.

3.2.3 How the coach adapts

The coach's communication with the athlete is always going to be directed to what the athlete has to do. As can be seen, the coach gives the subject some freedom to explore the task based on what they think is correct. Prior to a task, the coach reflects along with the athletes on what will be done and evaluates their basic knowledge regarding what is intended to be executed.

All the task information that is provided during the training sessions (before, during, or after) is duly planned by the coach. The type of intervention performed in the training session is adapted to the interpretations that are made and the player (or players) with whom the coach will work. Care should be taken during training with interventions, since this is the point in time where an athlete puts the knowledge learned about the sport to the test and they may be feeling emotionally sensitive. With this, the coach needs to know when it is best to intervene, and even more importantly, what kind of communication to use.

During competition, the same amount of care should be taken when intervening, since the wrong comment can knock an athlete's focus and concentration. Coaches need to take this into consideration and be aware of which athletes are sensitive to instructions during the game and which aren't. The team of psychologists can help with this kind of information and provide coaches with information on athlete profiles.

The information that the coach provides must engage the athlete on a cognitive level. This is related to long-term learning styles and what is meaningful for the subject. There may be times when the coach does not directly correct an athlete's actions, but rather leaves the athlete to reflect on their mistake and how to proceed. The player's self-analysis corresponds to interrogative *feedback*, which facilitates conceptual and procedural understanding of the task. Questions directed to the athletes as to why the athlete did what they did lead them to consciously reflect on the game. The athlete engages in an active reflective process, guided by the coach, to resolve a specific problem.

The objective is for the athlete to improve performance, increase self-esteem and build optimum levels of confidence for problem solving. This is what a coach's positive reinforcement is intending to achieve. Here, the player, unknowingly, connects a response with feelings of success as a result of a trainer's reinforcement.

Rodriguez (2000) makes a number of suggestions regarding a coach's communication:

- Communication must not be thought of as unidirectional. A message not only has to be relayed, it also has to be heard.
- Communication is verbal and non-verbal.
- Communication is made up of two variables: content and emotion. The first refers to the concrete message that is provided, and the second to the feelings that the player experiences. According to Damasio (2006), today, importance must be given to developing a player's psychological abilities so that the player has access to emotional management tools for decision-making.

Torres (2002) proposes that, when communicating, aspects to be taken into consideration should include tone of voice, volume, duration, etc. Words can be interpreted differently based on the variables mentioned.

Coaches need to think about the messages they send, both verbally and non-verbally, and take care to be coherent and ensure they don't contradict themselves.

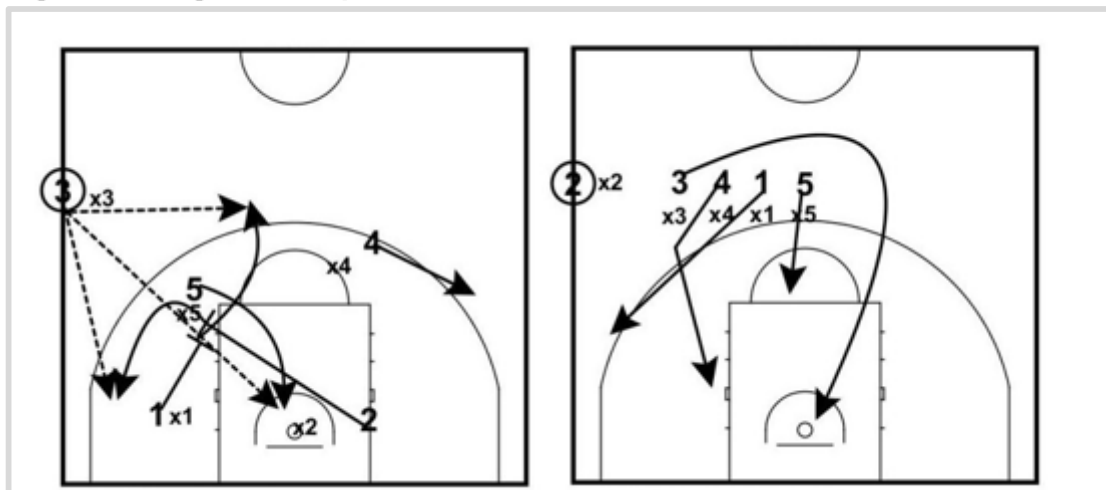
Next, we will provide some concrete advice about communication, along with some tools to use in the sports world to improve communication processes in this context.

As the sender of a message, the best channel to use always needs to be considered. Example: If the coach of a junior or senior team wants the team to always consider and have at-hand different strategy plays that are worked on every week, a recommendation would be to choose a channel that the trainer supposes the athletes can easily access. If printed paper plays are handed out, surely the athletes would forget them at home. On the other hand, if the trainer sends a file to the athletes by e-mail, WhatsApp, Dropbox, or any other online platform (all athletes are habitual users), they can easily access this information. To complementing all of the information that the trainer wants to

communicate, pieces of paper can be printed and hung up on the locker room walls so that, athletes, if they wish to, can review them on game day.

The next recommendation refers to signs and symbols that we continually use in sports. We have all seen sports where the trainers use boards to draw symbols to communicate with the players. But, are we completely sure that what we are drawing is being interpreted how we intend it to be?

Figure 4: Images used by trainers



Source: Prepared by author.

Another essential aspect to effective communication is to show coherence in messages. In addition to the fact that there is coherence between verbal and non-verbal communication, it is important to be coherent over time. Athletes are experts when it comes to detecting inconsistencies between what was told to them today and what was said some time ago. If this happens, we are going to steadily lose credibility in the group, with all that this entails. A very common example relates to the importance that some coaches place on an athlete's studies. There are coaches who, in accordance with their club's philosophy or for other reasons, will only explicitly ask their athletes about their studies and academic results four times a year. These four times a year tend to correspond to once during the pre-season and the other three days after the exam periods of the three school quarters. This can be experienced as inconsistent by athletes, as their coach's behavior communicates that they do not place much value on education. If, for example, an athlete lets their coach know that they may be late due to an important exam that could run over time, this would be a great opportunity for the coach to ask the athlete/student how the exam went the next day.

Errors in communication often have a common cause, although this doesn't mean that there is an easy solution. Managing emotions is key to successful the communication processes of coaches, physical trainers, directors, or other actors that are interacting with athletes. We can see many concrete examples of this. Coaches who communicate the

same way regardless of whether the team is winning or losing. Directors who go into the locker room because they are unable to control their anger. Or athletes who engage in unsportsmanlike behavior in the final moments of a match due to anger at the realization they will not be able to win. In this last example, there is also a communication process where the transmitter is the athlete and the receivers are the sports fans, young athletes and the athletes' family members. What message is that athlete's behavior sending?

In relation to the tools that can help us to improve our team's communication processes, in this section we are going to review some tools that are directed at improving communication with our players.

Team norms

These should be discussed in the first few days of a season. Often coaches say that it is too late to do anything because the season started months ago. We believe that this is the moment to work on communication for the coming season. The coach and coaching staff can predict, based on their experiences, the norms that they need to instill at the beginning of the next season.

On the other hand, as far as possible, steps should be taken to involve the athletes in establishing these norms. There will be stronger group commitment to the norms if the athletes have helped to establish them, rather than these norms simply being imposed without their opinion being sought.

Norms should be prescriptive (indicate the desired behavior) rather than proscriptive (indicating the undesired behavior). If we are able to establish norms in this way, they will be better assumed by the group.

To conclude the section about norms, we must also make a decision about the consequences, in the form of reinforcements or punishments, associated with the established norms. This point is of vital importance, as consequences must be clear - if instead they are inconsistent, it can undermine all the work that has been done on communication norms.

Do not use sarcasm

We should try to avoid using sarcasm at all times. If you mainly work with athletes in the initial stage, you shouldn't use it. It is surprising to realize how often an athlete is confused about what action to take because of sarcastic communication. A concrete example:

The coach of a little league soccer team cautioned all week that it is important not to move the defensive line too far upfield because the forwards on the opposing team are very fast.



At minute 30 of the first half, we take out much of the defensive line, the forward gains the back of our defense and they score, we lose 0-1. At this point, the coach, overcome with rage at seeing how they scored by passing the line, as he had warned, looks at the pair of midfielders and tells them: "Man, why don't you move the line even further? We would be wrong to assume that athletes are always able to catch sarcasm. Can you imagine how much more angry the coach would be if he saw that the pair of midfielders advanced even more in their position during the next play?"

In relation to the tools that can help use to improve team communication processes, we will look at some tools aimed at improving communication with people that make up the coaching staff. We are aware that for many teams, there is only one coach who will take on many roles, but this information is worth having in mind for roles you may have in the future on teams with more extensive coaching staff.

"Weekly" meetings

There are many teams that don't have weekly meetings established in their work schedules. These don't have to be very long, but it is fundamental for everyone to sit down together once a week to plan work objectives. In this sense, members of the coaching STAFF can share their impressions about how they see the group, their concerns, what needs to be worked on in the next few days, and many other topics of conversation that are relevant to team work.

Decision-making

When communication channels exist and they work effectively, it is much more probable that the coach or the person responsible for the coaching staff have doubts when it comes to making decisions. Should I consult the coaching staff team about all the decisions that I make? Just the most important decisions or the ones that I consider most important?

The Athlete's Language

Depending on where interventions are developed (during training sessions or in competition), the language that is used is different. During training sessions, athletes express themselves verbally based on what they are experiencing. There are different communication styles related to the coach's instructions that are intentionally directed towards players for their game codes.

In competition, especially in team sports, the use of non-verbal language tend to prevail. Eye contact, facial expressions, head nods, body gestures, and body segments come into play. These communicational displays must be practiced and mastered by the athletes.



3.2.4. Communication functions

The trainer, the athlete, the institution, and the family must all maintain informative, engaging or valuing and regulating communication levels. Communication must be informative: everything should be duly communicated and nothing should be left unexplained - as there are many people involved in the sports training process, information can be badly interpreted and handled. Communication channels should be planned to optimize processes. Communication must be engaging: every communicative style generates different types of emotional engagement, this must be taken into account to avoid situations that aren't favorable for the institution. Finally, it is the coach's and the institution's responsibility to regulate and measure out communication.

The subjects' personality characteristics will determine communication styles. The pool of psychologists will be responsible for sending the profiles to the coaches and suggesting tools that they can use. With this information, the coach can start to plan not only his training methodology, but also his ways of communicating: when, how, with whom, and what. Once information has been gathered to build profiles on athletes that the coach will work with, and the appropriate communication strategies have been decided upon, the coach can apply these to improve athletic performance on the field of play.

References

- Effenberg, A.** (1995). Das Sonification-Konzept für die Motorikforschung – Zur Ansteuerung der Motorik durch bewegungsdefinierten elektronischen Sound. *Trainer Akademie, Köln aktuell*, 4, 8-11.
- Ojalvo, M.V.** (1995). Estructura y funciones de la comunicación. In *Materiales del curso de Comunicación Educativa: Universidad de La Habana*. Havana: Universidad de la Habana.
- Pieron, M.** (1999). *Para una enseñanza eficaz de la educación física-deportiva*. Barcelona: Inde.
- Plested, M. C., Vallejo, G., Londoño, D.** (2004). Harmonization of non verbal communication in diving meets. *9th Annual Congress European College of Sport Science*. Clermont Ferrand.
- Redacción Barcelona** (Jun 9, 2018) Chris Bosh se moja: “LeBron James irá a los Rockets y será como una película de Los Vengadores”. *La Vanguardia* [digital version] retrieved from
- Rodríguez, M.** (2000). La comunicación en la enseñanza del tenis. Salamanca: Tesitex.
- Shannon, C. y Weaver, W.** (1949). *The Mathematical Theory of Communication*. Chicago: University of Illinois Press.
- Torres, E.** (2002). La comunicación educativa. *Retos*, 3, 37-43.