

A large, dynamic blue brushstroke graphic that curves from the top right towards the bottom right. Within the blue stroke, there is a faint, stylized illustration of a soccer player in action, kicking a soccer ball. The background is a light, textured grey.

FOOTBALL PERFORMANCE ANALYST

MODULE 3. TRAINING
PLANNING AND WORK
METHOD

**- CONMEBOL -
EVOLUCIÓN**

Module 3. Training Planning and Work Method

According to bibliographic references, training planning starts from an idea, a philosophy, a proposal based on what the coach wants. This way, when we know where we want to go, it is much easier to follow the best paths.

How many times have you stopped and asked yourself:

- What should this coach propose?
- What is the purpose of this training exercise?
- Why is he using numerical superiority and not an equality or inferiority?
- Why did you choose certain athletes and not others?

I believe that at least once you have asked yourself the above questions.

And do you know why this happens?

Usually because you have your own beliefs and philosophies of what the game of football is like, and you want to know the other coach's "whys".

What is the logic and intentionality in each training session so that throughout the process it generates positive results?

Stop and imagine that training session you have ever attended:

- Warm Up
- Initial Exercises
- Main Exercises
- Complementary Exercises

Be they with an emphasis on tactical, technical, or physical. At least one main idea was assigned to each exercise/training session.

The questions above are really key to any work done as a football coaching staff.

Understanding the coach's proposals and game ideas will be a starting point as well as a reference of where to go.

Therefore, when we talk about training planning, we can understand that it has reference points elucidated in research and in practice.

I'm talking about knowing what your team's needs are, what competition and problems you will be dealing with individually and collectively. Always knowing if the goals are realistic.

Another fundamental point to know when thinking about training planning is the amount of time the trainer has to implement his or her proposal.

Generally, every training plan should contain periods and stages so that milestones can be created to know the evolution and adjust the evolution route if necessary.

What if we now contextualize the planning of the training sessions to the coach's game model?

New questions may arise for you:

- Does the coach plan the game in each round according to the opponent?
- Does the coach have strategic actions?
- Does the coach plan the game based on my team?

After thinking about these questions above, it becomes increasingly clear that we need to know which area will be prioritized in training and in structuring this training.

As we have talked about in previous modules, the dimensions of performance are technical, tactical, physical, and mental, and they must be in full balance when the planning proposal takes place.

Well done! After this introduction of the need for training planning. I will reinforce it:

- Define where you want to go and work out the "hows".

Let's correlate with the practices!

It is up to the members of the coaching staff to have excellent communication skills in order to extract from the coach's ideas what the short, medium, and long-term objectives will be.

How about having all the principles and concepts very clear and defined by the trainer in easy reach? Seeing that there is an intentionality to each training exercise and where we can go with our students.

I suggest organizing what the static and dynamic references are in the football game. If necessary, go back to the previous module to review and make notes.

When you know these assumptions, SCHEDULE a meeting with the trainer and make it clear to you and also what he needs from you, over time you should seek more information from the trainer's proposals, expand the depth every day.

Example:

Let's think about a team that is characterized by a supported game. Where the coach gives the references of always being close to each other and creating free pass lines.

We already know that the coach:

- Likes a supportive game;
- Likes compactness;
- Needs athletes who create pass lines all the time.

How will this coach come up with this game proposal?

Through training planning, knowing that there are different individual and collective needs, it gives the athlete the opportunity to know what to do in each game situation and respond to the 90 minutes with efficiency.

So, in a macro view of the game, principles are established in offensive organization, defensive organization, offensive and defensive transitions, set pieces and restarts, as well as physical and technical needs improving together.

Now the need is to know whether each session of the exercise reaches the goal or needs adjustments.

Through performance analysis, coaches can have information and make decisions to improve the athlete or team in a short period of time and in a more specific way.

Knowing that many times the weekly schedule for training during competitions has a short time frame, days and most of the time with the need to control the volume, intensity and density of each session.

See the idea below of a work week with two games;

- **Monday:** Post-game break
- **Tuesday:** Pre-Game Training
- **Wednesday:** Game 1
- **Thursday:** Recovery
- **Friday:** Training
- **Saturday:** Pre-Game Training
- **Sunday:** Game 2

Training execution time is fundamental to improve the game proposal, but many times this is not possible due to the team's calendar. Thus, good training planning is closely connected to the work method so that all the great game ideas can be put into practice and executed more effectively on the field.

Speaking of method, it may vary from trainer to trainer, but everyone wants to achieve good results.

Let's go through some proposals that can help you when it comes to analyzing football practices and games.

When we look at the weekly calendar, we can see that different activities must be performed: pre-game, on game day, and post-game.

Case 1: The coach has as his work proposal to play strategically according to the next opponent.

In this case, the opponent's information should be ready and available for the coach to understand on the very first day after a game, so that, in possession of this information, the coach can set up his training sessions thinking about the next opponent.

The coach can think about how his team can and should behave towards the opponent and what organizations will be needed to neutralize the strengths and exploit the weaknesses.

Case 2: The coach proposes to impose his game model and not to play differently according to each opponent.

For this coach, it will be worth focusing each training session on improving his game model regardless of the next opponent, and so the work structure becomes different. Usually, an opponent's presentation is the day before the game or even on the day of the game. The main thing here is to know how much more efficient is the game model and individual and collective improvement in the proposal.

Case 3: The coach proposes to impose his game model and have some strategic adjustments in relation to the opponent.

The priority is to impose the game model, yes, but with adjustments in space occupation, movement, and behavior in order to take some advantage of the opponent.

Thinking about the work week, usually in pre-game training, some exercises are to simulate the proposal that should be made in the game.

In each of the three cases we have work proposals with different details and focus needs of the analyst in different situations.

For some analysts, the proposal could be as in case 1 of the earlier presentation of the opponents and analyze the training and game behavior based on the coach's references created that week.

For other analysts, the work protocol will always be focused on the game model and prior to the game detailing the opponent and model adjustments.

Understanding the process of training planning and that each coach has a working method on a daily basis to achieve the best result from each training session, and consequently the game, we need to understand how to record and collect the information to be used daily to guide the next steps.

Imagine now that the information goes beyond observations or perceptions.

This information arriving with more clarity and objectivity, in a way that gives the coach the opportunity to decide what to do and to know everything that was done. Information arriving through images, audio, text or even personally discussing this with the coaching staff and athletes.

Nowadays it is very common to find, in football trainings, a person filming the whole event, that is, everything that happens in the training to be recorded so that it can be watched as many times as necessary and allowing you to have the information you want. You can even, at a certain moment, watch to obtain collective information. At another moment, individual or even group information. At a certain moment you can watch to obtain collective information, and at another moment individual or even group information.

Nowadays we already find physical trainers and coaches that analyze from warm-up training, exercises, and games the behavior and physical response of athletes associating it with data from gps or fitness software.

Imagine that in addition to technical and tactical data, visualization of sprint direction, speed, accelerations and decelerations can be obtained.

Also knowing how the athlete is to start a training session and how he ends it. Knowing what the recovery and workload needs are.

As we have always emphasized here: the football athlete's performance will depend on physical, technical, tactical, and mental aspects.

What about the mental aspect?

Many psychologists and coaches use video for their specific observations.

If you still have any doubts about the importance of filming training sessions and games, rest assured that recording the entire event will allow you to extract hundreds more pieces of information that can only be observed in real time.

When it comes to filming, nowadays with the technologies available, it has become very easy to have access to high quality images at low cost. Just look at your own cell phone, and chances are that it has a video camera that can be used. Today there are brands of cell phones that film in very high resolutions and all this in the palm of your hand without the need for expensive cameras.

However, depending on your reality to invest, there are still other options such as Full HD (1080p) cameras that provide excellent quality for the work. A resolution between 720p and 4k is recommended to get a good resolution when analyzing and presenting the images.

Another tip is with regard to the choice between cameras that film and camcorders. Always choose a camcorder for football games. Camcorders usually have a setting that stops recording after 20 to 30 minutes and it will not be possible to have continuous videos of the games. But maybe for trainings it can be used because of the interruptions of filming it can do.

Another great tip is the choice of memory cards for such cameras, look for the high speed class 10, it will help the quality of the footage without losing frames during recording.

In addition, a good tripod will help provide stability in images and smooth movement.

While we're on the subject of quality filming, I want to talk about the importance of filming angles. Generally filming from a higher point helps to give a better view than at grass level.

For this, there is the possibility of using mounted platforms (scaffolding), towers, specific tripods that reach about 9 to 10 meters in height with real-time displays for the analyst (hi-pod is one of the models).

Another widely used solution today are drones that can vary the height, proximity, and angles of high quality footage. A tool much praised by coaches. However, it is worth noting that for training is excellent, but not so suitable for games due to flight autonomy.

You may still be asking yourself: What about angle cameras? They are excellent for the overall view, but they are too far away if you are filming in a stadium. I always recommend a traditional camera as a first choice and an angle as a complement.

See below the layout with a regular camera and an angle camera.

Figure 1. Layout with a regular camera and an angle camera



Source: Own archive

In the image above, the work is done with a computer receiving the images from the camera in real time through a capture card, so no conversion or editing procedures need to be done before using the videos, they are already recorded immediately and in the format you want.

And there are clubs that have already advanced in using real time images on an iPad on the bench or on the field during training sessions, but I will explain this better in technologies in the other module.

Figure 2: Real-time recording and information collection



Source: Own archive

In the image above, recording and collecting information in real time and directly on the computer in a training session.

This facilitates training and games for the execution of protocols in direct analysis.

Inclusively, I can already mention here, two types of training and game analysis methods: direct and indirect.

- Direct: when done at the place where the training or game takes place.
- Indirect: when done through materials received or found to study what happened.

Usually a performance analyst performs both forms of analysis, running specific protocols for the live moment and then other protocols afterwards. This broadens the information and decision possibilities for the technical commission.

Remember the importance of planning and excellent training planning?

This is exactly what will guide us as analysts in our day to day work, offering the best information. Facilitating and adding value to the work of coaches, athletes, and clubs.

Let's think about the work routine with the use of videos, images, and other information.

Scenario of a full work week:

Pre-Workout

- A video presentation or illustrations such as tactical clipboards can be displayed to give clarity to the training objectives;
- Development of the specific protocol of the objectives of each training exercise (planned in technical commission);
- Arrange the location where you will conduct the shoot. Remember the filming angle and height. Always look for the best position to record each exercise of the training session;
- Check the equipment: battery, cables, software, pen and paper, tripod, camcorder, memory card, capture card, computer, etc. (this is just a suggested work kit and may vary according to each reality);
- For some technical committees it is essential to film from the warm-up, the goalkeepers' work, and all the other exercises until the end;
- Goalkeeper protocol, you should have another specific planning with the goalkeeper coach.

During training

- Focus on recording and collecting the planned data, any other information should be obtained later;
- Provide feedback to the coach and assistants when requested, in this case it is worth agreeing in advance when will be the best time to give feedback to them;
- For those who have a structure of equipment and software, use it to have the data in real time. For those who use pen and paper, try to have a form that facilitates the collection of information.

Post-workout

- Time to organize the information obtained in real time;
- If you have a second training analysis protocol, run it and have more information to provide;
- A playlist of the videos that shows what you intend to say and report is welcome;
- Feedback meetings and explanations can be done individually or collectively, this varies from trainer to trainer.

Pre-Game

- A video presentation or illustrations such as tactical clipboards can be displayed to give clarity of the game model;
- A video presentation or illustrations such as tactical clipboards can be displayed to give information of the opponents;
- Development of the game protocol (planned in the technical commission) with the information that will be passed during the game and in the game interval, which can be via radio, videos, images, text messages, or in person;
- Arrange the location where the shoot will take place, if possible arrive well in advance;
- Check your equipment: battery, cables, software, pen and paper, tripod, camcorder, memory card, capture card, computer, etc;
- Be attentive to start shooting and test everything before starting the game;

During the game

- Focus on recording and collecting the planned data, any other information should be obtained later;
- Provide feedback to the coach and assistants when requested;
- Be aware of opponent variations to give feedback during the game.

Post-game

- Time to organize the information obtained in real time;
- If you have a second game analysis protocol, run it and get more information;
- A playlist of the videos that shows what you want to say and report on is key, especially those that report on the game model (strengths and points of improvement);
- Present and discuss with the technical committee the information obtained;
- Feedback meetings and explanations can be done individually or collectively, this varies from trainer to trainer.

Through this routine, we can see that analysis can assist trainers in the process of continuous improvement.

In many places, the performance analyst may also be monitoring and analyzing physical data and linking it to technical and tactical data.

So all the information needs to assist in the athletes' development and training routines.

I suggest using spreadsheets or other database software like Google Data Studio (currently free) and having the data from each practice and game in the cloud and creating excellent analysis.

The physical data when contextualized gives an upgrade in the understanding of the daily training load. In this way, the association of this information takes the work to another level.

There are many tools that can organize everything and bring out the essentials and give the opportunity to see what would not be possible with the naked eye.

So the time has come to organize all our ideas brought so far.

We saw in modules 1 and 2 how much performance analysis in football has evolved and is evolving. That having references is fundamental in order to analyze. Now in module 3 we talk about the importance of planning and work methods.

Find your method and improve it with each reality you encounter.

Let's go to the next module!

Analysis of my team (variety of technologies)

We have come this far knowing about the evolution of performance analysis in football and how it helps in the process of training, games, talent scouting, market and longitudinal follow-up of athletes.

We also saw the role of the performance analyst and the evolution of his functions within a technical commission, each year with a deepening of attributions and level of performance.

We began to study, understand, and analyze the game of football. We realize that there are many concepts and pedagogical references that give us direction and a step-by-step of where we are and where we can go. This transforms the way in which we understand the game and how we can generate information to analyze the evolution. We have reached another level and it will be difficult to go back. Now we need to know how to organize the analysis processes on a daily basis and in real practice that will allow you to adapt them to your reality.

As the Brazilian philosopher Mario Cortella always quotes:

"Do your best, in the condition you have until you have a better condition to do it in."

This is exactly what we can understand and expect from the diverse realities of the clubs around the world. Some have more professional structures and others not so much. But this cannot stop us from studying and analyzing football in order to apply it in training sessions and games. Raise the quality of each training session and, consequently, the quality of the games.

It is up to us to do the best with what we have until we can do even better.

That's why we had a whole module explaining about training planning and working methods. Knowledge put into practice will always be better than any technology without intelligent use. Therefore, having clarity about what you are going to train, analyze, and improve will make a difference. Knowing individually and collectively where to improve and apply the knowledge. Evolve.

All the content here has given us the basis to start a more practical process of what to do and how to do it in football games. I am sure you will put this into practice as you want to make a difference in football.

So, at this point, I invite you to embark with me in understanding the analysis of our own teams and the technologies involved, from the simplest to the most modern.

Let's see how much information we can extract and use to see the evolution of our athletes and team, organizing a very well-defined work process and result.

Extract what brings results without wasting time gathering data that will never be used.

Does it make sense to you?

How many times have you asked yourself, "What information should I bring to the trainer?"

As we talked about in the training planning module, the starting point is to know what the game idea is, the proposal that the team and its players should follow as a "roadmap" when making collective and individual decisions. We can call this proposal the Game Model, a guiding map for problem solving during a football match.

From the game model proposal (the coach's game idea) we have the necessary references to know if the course of the work is in the right direction and what adjustments should be made so that it doesn't go out of the right direction.

Let's think about the following, in a hypothetical game model here where the coach pedagogically exposes the ideas in a fractioned way in phases and moments of the game. This is how it works:

- Offensive Organization
- Defensive Organization
- Offensive Transition
- Defensive Transition
- Set Balls and Replacements

Assuming that in the Offensive Organization (Attack) he has some principles that govern how he will play such as:

- Playing in Amplitude and maintaining the playing position without occupying more than two sectors on the field

- Challenge the opponent's lines with and without the ball
- Speed of Play

Let's take these ideas above as an example of a game proposal that will be deepened now, since the fractionation of what to do in the game will be governed by the ideas proposed above.

When we talk about playing in amplitude (our example used here, after all, there are many other ways to attack), we can show the static and dynamic references of where the athlete will play and how he can conduct the game in each position. In this game proposal he has the freedom to play in some regions of the field, but without invading the spaces of his teammates.

In this way, the player generates breadth in width and depth, so that his teammates can always find one of the athletes free to receive the ball and take an advantage. In this case it is fundamental to be able to activate more passing channels all over the field and also to be able to spread the rival out more on the field.

So, the proposal when attacking is to generate amplitude, depth, to know where to occupy the spaces and generate advantages.

However, the athlete still needs to understand other details that will give more in-depth references during the attack.

One of them is the mastery of the concept of "Free Athlete" for the construction of the game, this player can vary depending on the game situation, or the place where the ball is on the field and the game triangles.

This starts from the ball out where the players are already separated at different heights on the field. This proposal is to make the athlete aware, through training and analysis studies, of what is happening (reading the game) and create conditions to use the spaces (actions).

Still emphasizing that we are talking about an example so that you can understand the game model and create an analysis proposal based on it, thus generating quality information for the coach, athlete, and technical committee.

Further detailing the proposal of the game model (example) that we are working on here, the attack may or may not have possession, it may be a consequence and/or still the coach wants to verticalize the game and attract offensive line and midline, to break through and be

vertical, all this with creation of moves to break through the first two opponent's lines, generating superiority in specific places.

Thus, in this game model we will have excellent references for analysis from macro to micro concepts, such as:

- generate positional superiority, looking for the "free athlete" who is usually behind the opponent's pressure line;
- free athlete: player who receives with more time/space to perform actions facing the game;
- generate passing options, progress, and infiltrate;
- athlete needs to have the best decision of when to pass the ball and when to drive;
- create superiority (numerical, positional or qualitative) behind the rival pressure line and all over the field;
- The team must keep together (attack defending and defend attacking);
- find companions far away and free;
- ball possession can be a means of execution and control of the game;
- always move the rival (modify the distance between the opponents and the structure, generating spaces to explore by driving or dribbling);
- where the athlete is;
- how the athlete is doing, thinking about body profile, angle, relationship with teammates and opponents, and body orientation.
- the acting athlete: drives the ball to attract the opponent or also keeps if there is not a good passing option and thus makes a pass to the closest teammate;
- the close athlete: presents himself as the pass line, preferably behind the opposing pressure line and continuing the game after receiving the ball, for this he needs to be well located;

- the distant athlete: keep the opponent busy scoring, increasing the team's breadth and/or depth, always offering long pass line;
- One idea can still be to think and dominate spaces: attack on the side of the block, attack between the line, and attack behind the line.

Well done! We used these references as an example of an offensive game model with concepts and proposals of a coach, and now we need to take this to the analyst's eyes and thus generate information about what happens in the training and game from this proposal.

In day-to-day club practices we find coaches who demand the complete footage of the games to watch everything and have their own conclusions, as well as coaches who ask analysts and assistants for specialized editions, where the content presented is based on the game model. This may include errors, hits or patterns of the concepts presented.

That is why I always suggest filming your team's games and extracting the best information. Even here, the type of filming influences a lot to be able to watch later and identify what you want. Maybe some concepts need footage with more openness in the image (less zoom) than with a lot of proximity (more zoom).

I will take our game model above to illustrate what information we can extract to use in the next trainings and adjust the next games accordingly.

Example of an attack observation protocol based on the example game model stated earlier. In hand filming or watching the game, you can collect the following information from the offensive organization:

- generate positional superiority, looking for the "free athlete" who is usually behind the opponent's pressure line;
- generate positional superiority [YES] [NO] [WHICH SECTOR] [WHICH TIME] [PLAYERS INVOLVED]
- free athlete [YES] [I CAN BE] [WHICH SEAT] [WHICH TIME] [ATHLETE WHO CAN BE]
- passing options [YES] [I WOULD BE] [WHICH SEAT] [WHICH TIME] [ATHLETE I WOULD BE]
- progression options [YES] [CAN BE] [WHICH SEAT] [WHICH TIME] [ATHLETE THAT CAN BE]

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- infiltration options [YES] [I CAN BE] [WHICH SEAT] [WHICH TIME] [ATHLETE I CAN BE]
- passing or driving decision [POSITIVE] [NEGATIVE] [WHICH SECTION] [WHAT TIME] [ATHLETE INVOLVED]
- numerical superiority [YES] [I WOULD HAVE] [WHICH SEAT] [WHICH TIME] [ATHLETE INVOLVED]
- positional superiority [YES] [I COULD HAVE] [WHICH SEAT] [WHICH TIME] [ATHLETE INVOLVED]
- qualitative superiority [YES] [I WOULD HAVE] [WHICH SEAT] [WHICH TIME] [INVOLVED ATHLETE]
- attacking defending and defending attacking [IT HAPPENED] [SHOULD HAVE HAPPENED] [WHAT TIME] [PLAYERS INVOLVED]
- far and free options [YES] [I WOULD HAVE] [WHICH PLACE] [WHAT TIME] [ATHLETE INVOLVED]
- ball possession [QUANTITY] [SECTION] [TIME]
- opponent's movement [IT HAPPENED] [SHOULD HAVE HAPPENED] [WHEN] [PLAYERS INVOLVED]
- where is the athlete [POSITION] [ACTION] [TIME]
- how is the athlete [POSITION] [ACTION] [TIME]
- the performing athlete [POSITION] [ACTION] [TIME]
- the next athlete [POSITION] [ACTION] [TIME]
- the distant athlete [POSITION] [ACTION] [TIME]
- attack on the block side [YES] [CAN BE] [WHERE] [WHAT TIME] [ATHLETES INVOLVED]
- tackle between the line [YES] [CAN BE] [WHERE] [WHAT TIME] [ATHLETES INVOLVED]
- tackle on the back of the line [YES] [MAY BE] [WHERE] [WHAT TIME] [PLAYERS INVOLVED]

These are suggestions that may or may not make sense for your coaching staff, so we always stress that they are examples.

But now you can understand that information like this based on the coach's game model makes more sense in the team's evolution and, thus, with training proposals based on analysis, the work becomes more effective.

Taking the above protocol into consideration (example of an offensive organization only), we can generate statistics of technical, tactical, physical, and decision-making events.

This is a moment when you must be wondering how much sense it will make to combine the numbers of the game based on the game model and the qualitative analysis of the concepts!

Whether you will use more qualitative or quantitative analysis will be decided by the technical committee and the coach. But the question is, have you seen how clear it is to analyze the game now? Did you see how you can help your team to raise its level? Did you see how the coach has constant information to improve training? individual and collective?

Imagine now with all the offensive and defensive data in your hands? A leap in quality, huh?

To generate the statistical data for all this, you will need to create a good database, preferably organized and with good filters to find the data and perform statistical procedures if needed.

Initially you can create a spreadsheet (e.g. Excel®, Google Sheets® or Numbers®) to include the information you collect while watching the games. You will have a frequency of events such as:

- generate positional superiority

[YES]=1 [SECTOR]=C3 [WHAT TIME]=13' [ATHLETES INVOLVED]=7,9,11

[YES]=1 [SECTOR]=B3 [WHAT TIME]=19' [ATHLETES INVOLVED]=7,8,9

[YES]=1 [SECTOR]=B2 [WHAT TIME]=27' [ATHLETES INVOLVED]=8,9,11

[NO]=1 [SECTOR]=B2 [WHAT TIME]=23' [ATHLETES INVOLVED]=8,9,11

Imagine that this can be transformed into the most accessed sites with positive and negative actions, time, athletes involved, and finally, after a statistical procedure or not, report the most successful sites of your team and sites that must be improved. Or even, which athletes generate more results to the proposals and those that generate less. Or perhaps, which

athlete relationships can yield the most results. Which athletes need to improve the concept in training, etc...

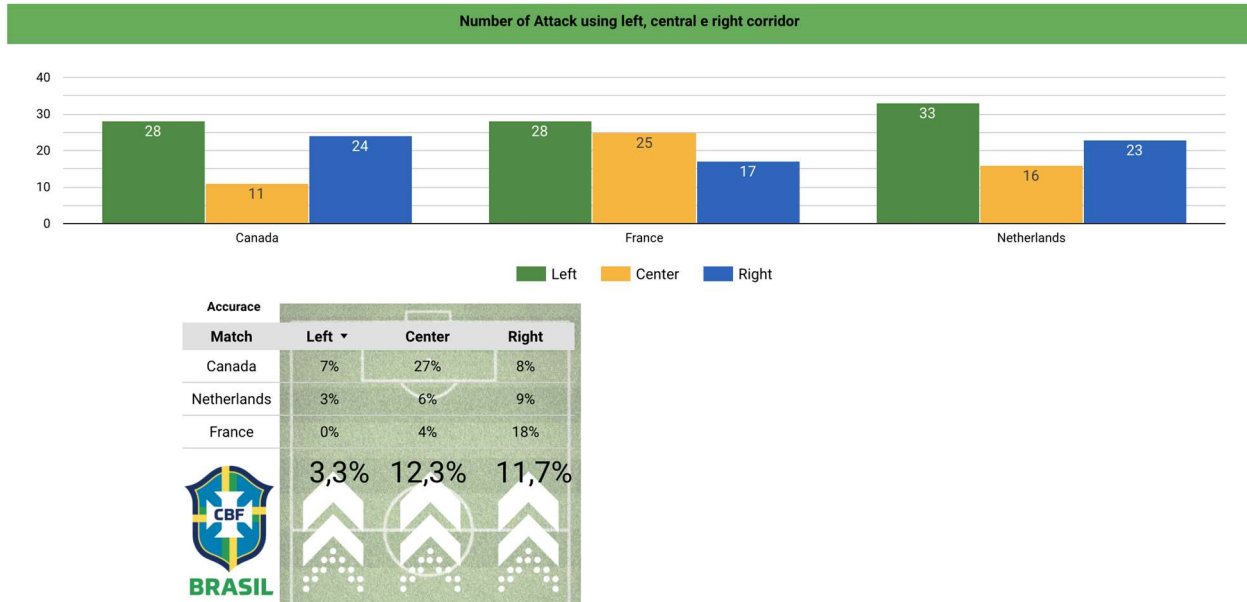
So I emphasize again that the best information will be the information that brings to the coach the game-changing information that makes sense of the constant improvement of the training in the pre-game week.

This kind of information can be requested in many ways by trainers, but usually they want to see the final results already analyzed and processed. Clear, objective information.

I will suggest here a free site for creating amazing dashboards with data inserted into spreadsheets that is Google Data Studio (<https://datastudio.google.com>) and also Power BI. In it you can use excel spreadsheets or even use google sheets to make a base of information and create dynamic presentations of the data with really modern filters. You can search the internet for tutorials on how to use the tool, but I say you will like it.

In the images below, I looked up information from a national team to find out usage data for the field runners in 3 games and was able to observe different types of usage with the numerical data. See the results:

Figure 3. Usage data for the field runners



Source: Own elaboration.

In this image above, we can see the utilization of the actions in three different corridors. Notice that even with a large number of actions in the left side corridor, a low utilization was found when comparing the central and right side corridors.

For those who wish to work the science on top of the data with more advanced statistical procedures there are specific softwares that can generate complementary and applicable information when associated with the game model and contextualized. However, we emphasize the importance of the choice of variables in order not to have problems with meaningless results. A study of the variables to be used needs to be very well done.

When it comes to our team's game analysis, we can use other technologies as mentioned in other modules, but ones that are effective for recording and collecting game data.

As we have already mentioned, filming is an important action to be performed, and if possible from more than one angle and image opening. Most of the time the teams look for their own footage and TV footage (when available).

In some teams multi-camera filming is already a reality as footage, open from corner flag to other corner flag, from defensive line to defensive line, diagonal to the field of play, lateral to

the field of play, in the back of each goal, reaching more than 8 different angles and in recent times without the need for camera operators.

Nowadays IP cameras (networked) are accessed directly from a central location and can be moved and directed as needed in high resolution.

We still have the so-called autonomous cameras that can track (identify the athletes) and follow all the technical, tactical, and physical actions of the game. From these, software that relies on artificial intelligence will learn and identify patterns and generate more information.

These technologies are already used in many places around the world in training and games.

To get an idea, there are already artificial intelligence systems that predict what is going to happen seconds before it even happens, and improve the algorithm as information comes in and enters the database. But the investment in this kind of technology is still very high.

Some companies commercially provide data from the simplest to the most complex as you contract with them. These are called data platforms that can provide technical, tactical, and physical data from teams around the world on an individual and collective basis. And the accuracy of the information is getting better and better. The best known companies in South America today in this branch of platforms are Instatscout®, Opta®, Kyn Analytics® and Wyscout®, but there are other excellent ones available as well.

However, the most common way seen in football clubs to get the information from football games is through software and analyst actions.

It works as follows:

- An analyst prepares the protocol with the coach and technical commission
- This protocol is created in software that can tag the video [tags], trim [customizable time], and create playlist [to be shown to the coach and athletes] and statistics [database].
- A camcorder will be able to record the entire game on your memory card and sometimes a capture card will be connected to the camcorder and a computer so that it is already recorded in the desired resolution and format without having to convert the videos taking hours to do so. Tip: a capture card makes a difference in the work time of an analyst, because the video is already available during shooting.

In short, a video camera connected to a capture card (or not), connected to a computer and with software capable of scoring, editing, creating playlists and statistics with an exact protocol of the game model (individual and collective). Today on the market there are several softwares available and I will mention some free, low cost and other more advanced: Longomatch®, VO sports®, Graval®, Scoutub®, Hudl Sportscode®, Nacsport®, Angles®, etc.

Some of these systems can be used in real time to the game and others after the game is over.

They can create a timeline with all the actions created by the analyst and can easily be found and adjusted if necessary. Thus, the analyst can refine the information quantitatively and qualitatively and deliver to the coach what can really make a difference in building training and adjusting tactics and strategies.

Real-time information such as statistics and videos are already possible to send to the bench so that assistants and coaches can decide in real time which direction to take.

There are other technologies that help coaches: the so-called electronic clipboards that allow them to illustrate the actions that are taking place or even to explain the game model or the strategic needs for a specific game to the athletes pre-game. You know the tactical board, there is software that simulates the plays creating videos to be presented and even sent to the athletes' phones to help in the understanding. Fantastic, right?

Football is becoming more and more technological and pedagogical in all categories and levels.

And speaking of pedagogy, I can't stop talking about video illustration software.

There are companies that have specialized in software that allows them to illustrate the footage so that the information becomes increasingly clear. You know those special effects that we often only see on television, are increasingly accessible, including, many of the companies I mentioned above are already making available in their software the possibility of polishing directly on them.

Today in the market I can mention softwares such as Klipdraw®, Coachpaint®, Metrica Sports®, etc. Each one of them has its own particularity.

I also want to mention the use of clouds as an alternative for storing the footage and transferring it to the athletes. Just imagine that we can leave all this information mentioned in the module, all in a virtual cloud and access by various electronic devices facilitating access

by athletes and coaching staff. All analysis and data can be accessed when the athlete finds it interesting to study, but will always be available.

This combination of information presented in the club and remotely via the Internet greatly helps the athlete's understanding. It is giving the opportunity to have several ways to learn and study for evolution.

We start from the idea that the coach can have several points of contact with the athlete in favor of evolution. Presentation of the game model, analysis of the game model, and individual feedback.

Now, as a suggestion, describe your team's game model and create an analysis protocol. If you are not yet part of a team, simulate participating in one, but be sure to practice this task of analyzing your own team, game model, technologies you can use, data you will provide to the coach, and how you will convey to the team!