2. Analysis during a match

2.1 Collection and exchange of information during a match

The analyst has to master this process of collecting and exchanging information during a match. This is related to both the use of technology and what to observe from his privileged position.

For instance, programs such as (Longomatch, Nacsport, Eric Sport, VideoTag, Sportcode, among others) and the categories in which we will divide what we observe.
Due to the immediacy that these collection and analysis of information require, we must have the relevant skills to achieve this need.

Therefore, on many occasions, we will have to adapt and train these skills previously; usually pre-season is the specified period to keep an agile and fast record during the match.

Below, we will describe some examples of code windows employed in this process. We will not get into the details of the technology used since this topic is addressed in other course.

But we will deal with the criteria that inspired the code windows' design.

First, we have a match observation and tagging code window corresponding to Football Federation Australia.
This code window belongs to a new talent identification program in Australian female soccer through video analysis (for the U17 and U20 women's World Cup).
Due to the size of the country and the inability to see each player's live performance they had to design this tool.
The plan is that the FFA (Football Federation Australia) provides all clubs with the required technology to film matches, upload them and share them in a platform.
The federations of each state will give clubs the tools to analyze matches according to the following code window’s criteria.

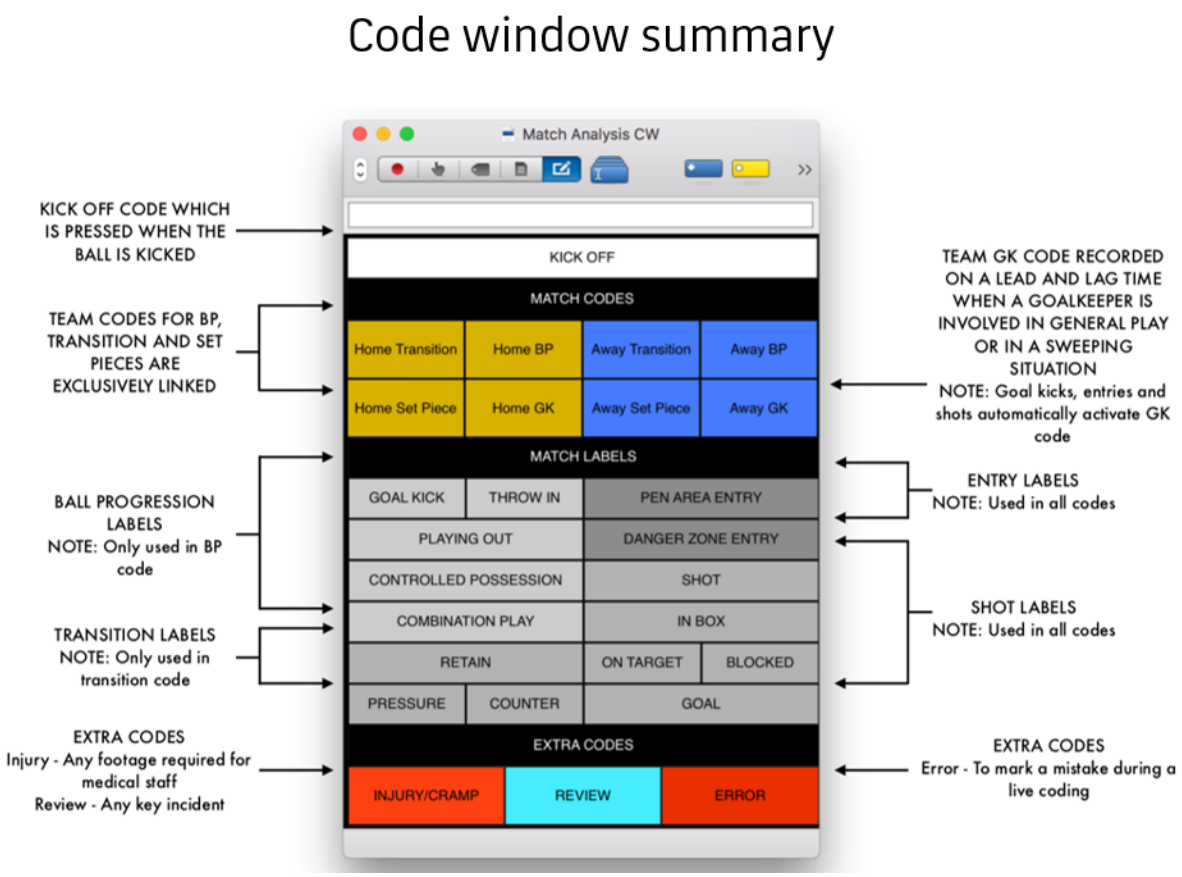
Figure 1: Football Federation Australia

First, we see the kick off button (KICK OFF).
Then, we see a part of the code windows in which match codes appear (MATCH CODES) for both teams (yellow and blue).
Below these, we can see the match labels (MATCH LABELS).
Finally, we can see the extra codes (EXTRA CODES) label actions as:

- Injuries.
- Review (this is to indicate that this moment needs to be reviewed).
- Error (to mark a mistake in the labeling).

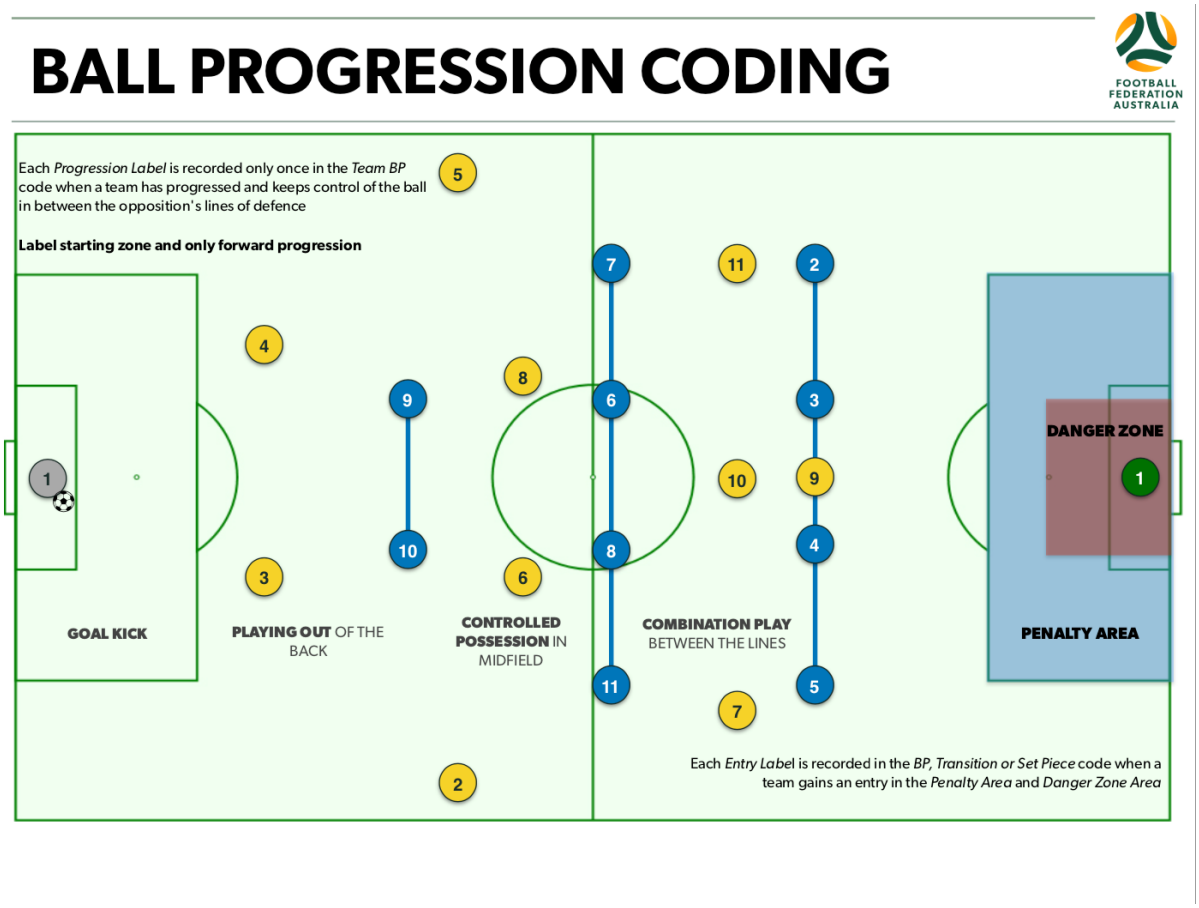
Source: Football Federation Australia s.f. p. 13.

Figure 2: Code window used by the Football Federation Australia



Source: Football Federation Australia s.f. p. 14.

Figure 3: Ball progression coding

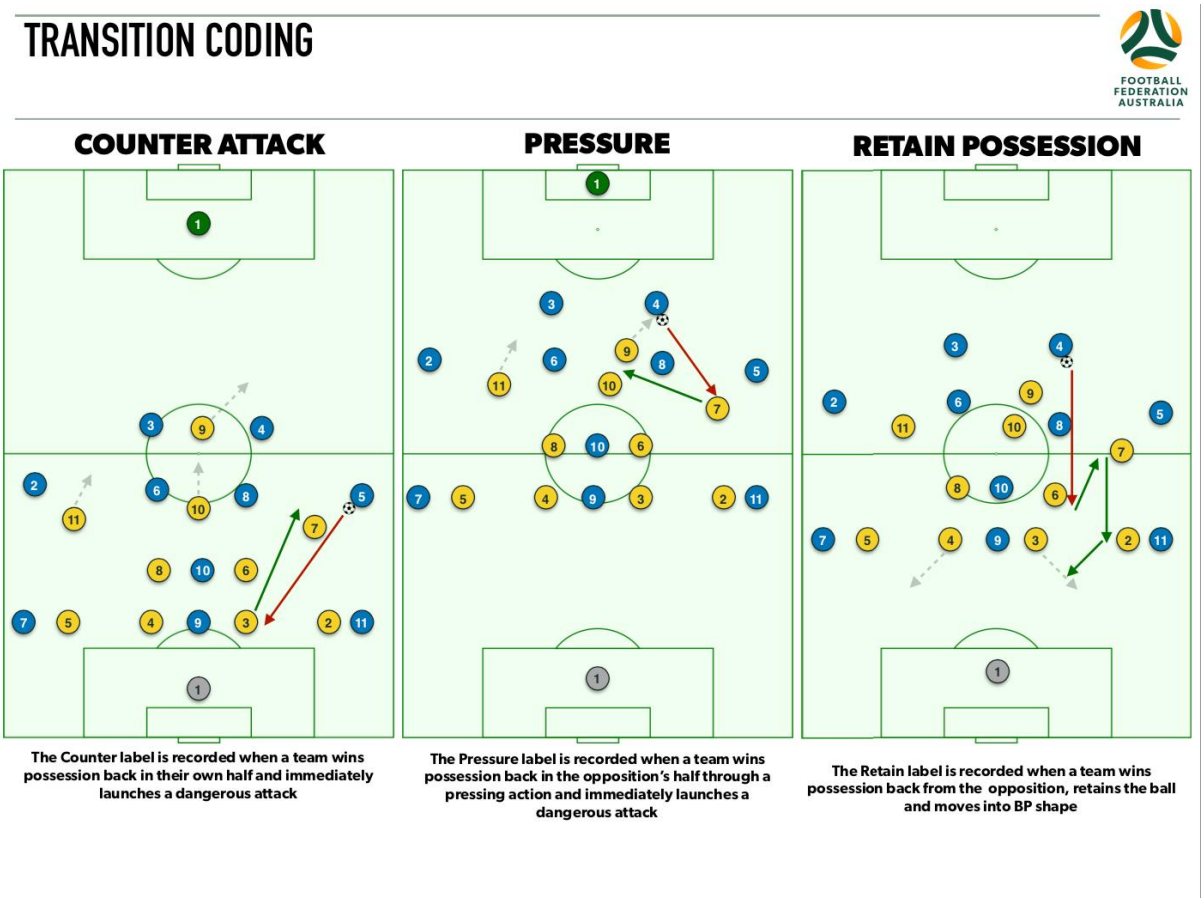


Source: Football Federation Australia, s.f,. p. 15.

Figure 3 shows the meaning of goal kick (*goal kick*), playing out of the back (*playing out of the back*), move forward (*controlled possession in midfield*), playing in the opposite field between the lines (*combination play between the lines*), penalty area and danger zone.

Figure 4 shows when to identify and press the buttons corresponding to the *counter attack* (when a team wins possession back in their own field and launches a counterattack), *pressure* (when a team wins possession back in the opposition's field and launches a counterattack), *retain possession* (when a team wins possession back from the opposition and retains the ball).

Figure 4: Transition coding



Source: Source: Football Federation Australia, s.f,. p. 16.

In the code window that appears in figure 5, we can see three separated zones:

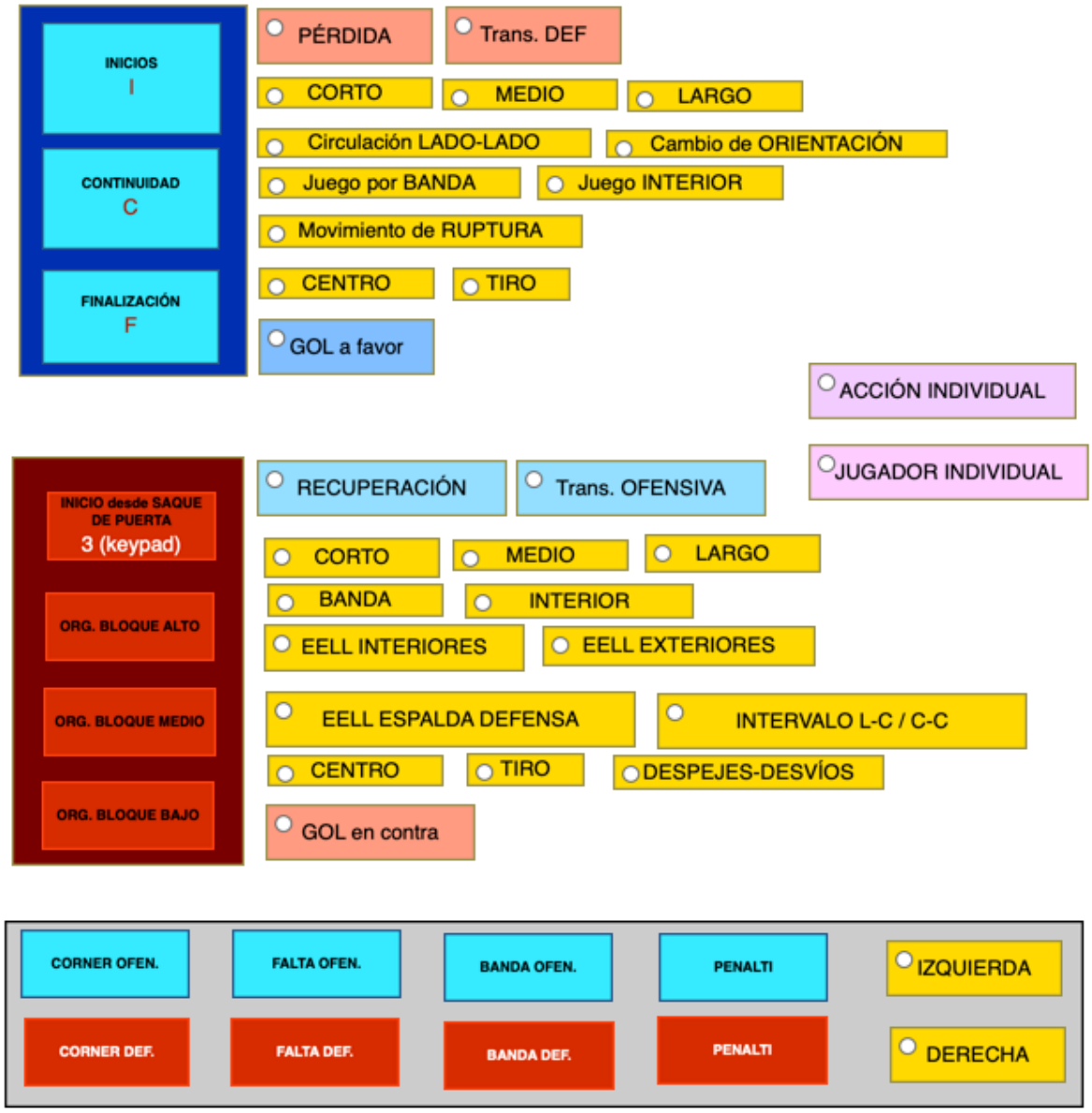
- Attack (start-continuity-finishing) next to the corresponding transition after losing the ball. The most significant actions and the goal for are included.

- Defense (low,mid,high defensive block) next to the corresponding transition after recovering the ball. The most significant actions and the goal against are included.

- Set piece actions (SPA) or restart of play both for (blue) and against (red) and distinguishing the right and left label.

There are also two labels corresponding to individual actions belonging or not to a specific player.

Figure 5: Sportcode's code window used by the Spanish National Football Team in the World Cup Russia 2018



Source: Hudl Sportscode's screenshot (Agile Sports Technologies, Inc., 2019).

In this case (figure 6), we see a simpler code window but inspired by the same criteria. The observation post (no computer space) and the immediacy with which video clips have to be prepared make the difference.

Figure 6: Icoda iPad Mini's code window used by the Spanish National Football Team in the World Cup Russia 2018

Source: Prepared by the author.

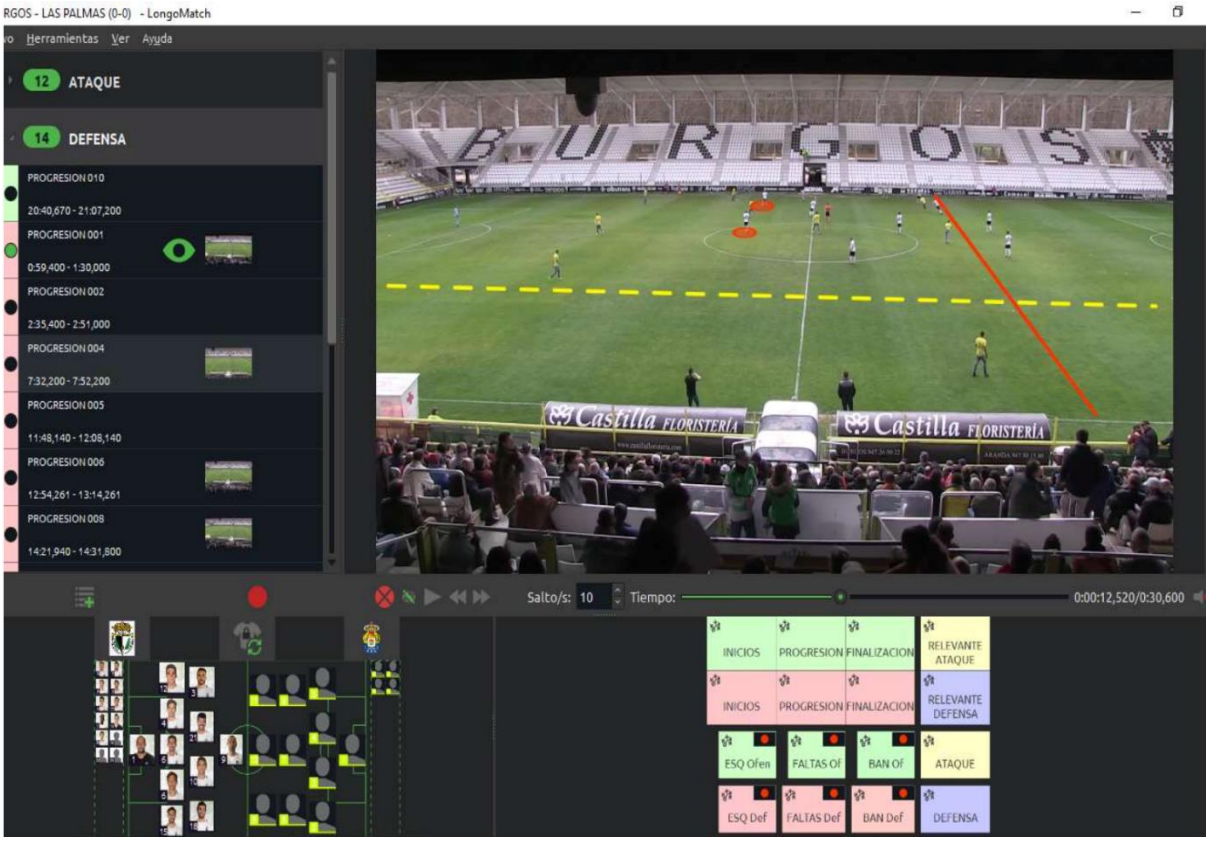
You probably think that these tools are not available to all analysts or coaches. It is true that, in some cases, it can be very expensive and not all clubs have these resources that facilitate the collection of data and the immediate work of the analyst during the match. However, we have to know that the rapid technological advance will make these types of tools more accessible to all of us.

Meanwhile, we can use inexpensive tools that are available to everyone. We refer to very affordable and even free programs that allow us to carry out analysis in real time.

Or even to use mobile phones. Phones, together with other software applications, are powerful tools that allow us to collect data during the game; you can even edit images or videos quick and fast. The transmission process, as we imagine, will also be instantaneous and a very important tool that we must take into account when we work.

Below, there are some examples of these tools.

Figure 7: Customized code window used by the Burgos CF's coaching staff in the start of the 2019-20 season



Source: LongoMatch's screenshot (Fluendo S.A, 2019).

In this figure (figure 8), we can see a picture edited with an app (snapseed) that can be shared instantly.

Figure 8: Preparation of the 2018 World Cup in Russia, England-Germany friendly match Wembley Stadium (November 10, 2017)

Source: Prepared by the author.

Once you are sure about the analyst's competence and the suitability of the process, we must take care of specifying the collected information, that is to say, **what do I observe?**

1. On the one hand, we have our own or others' behaviors that have been addressed previously in the playing system and that we expect to take place in the match plan. That is to say, known and previously studied behaviors. We are probably referring to an observation made from a logical point of view, that is to say, "through a method or reasoning in which the ideas or the sequence of events show up or develop consistently without any contradictions between them" (Lexico, 2019).

2. On the other hand, we have unexpected and unwieldy behaviors as a result of the clash between two complex systems. In other words, we will be talking about the creation of a chaotic, non-linear and non-deterministic dynamic system. All this lead us to assume the chaos theory and consequently also the butterfly effect.

The key factor is: what information do we collect? And what information do we convey?

The starting points clearly arise having reached a consensus and clear guidelines after the assessments among the coaching staff. From that perspective, the criteria that define what information may be useful and better to withhold for appropriate times will be established.

Below, there are some aspects that we must take into account during the observation process. As we have mentioned before, this can be the starting point but in each case, we will have to agree on these issues.

From the defensive perspective:

- Global errors made by the lines or flanks that can clearly facilitate an imbalance leading to goal threat.

- Group errors in specific zones of the playing field. Lack of coordination in key moments of the game regarding ball handling and relevant spaces.

- Individual errors. The tactical error that clearly causes a player to potentially offer an advantage that can be exploited by the opponent, either by poor decision-making or by a wrong activation at the time of intervention.

- Specific challenges that are unbalanced by the opponent or omission of our defender, poor decision-making and/or lack of coordination in key assistances that could generate potential imbalances.

- Identification of unforeseen weak zones in which vigilances or timely interventions do not take place

- Identification of movements that can influence our defensive set pieces.

- Those available statistical parameters whose values are of extraordinary nature or exceed the normal range. To detect such cases faster, we can set alarms according to previously studied statistics. For example, an analyst can set alarms (according to previous statistics) that can go off depending on a variety of criteria (set the level or number in which it goes off):

    - Number of attacking/defending corners

    - Number of attacking or defending crosses to the box

We can see another example in figure 9 which offers up-to-the-minute information, a scorecard and a real time dashboard. Dashboards are customized (9 data maximum per dashboard 2 teams) 150 statistics.

Figure 9: Statistics dashboard

Source: Mediacoach's screenshot (MEDIAPRODUCCION S.L.U, 2019)

From the offensive perspective:

- Potential weak zones that can be used to unbalance the opponent.
- Potential opponents that should be forced in a more notorious way by our players for not being adequately controlled.
- Opponent's defensive errors at space level of a global or group nature that may result in an immediate competitive advantage.
- Opponent's individual errors that may be a potential advantage for us.
- Opponent's recurring errors that may be exploited.
- Goalkeeper's specific positions who might be clearly surprised in subsequent occasions.
- Strategic opportunities arising from the approach of the opponent team.
- Clear opportunities during set pieces as a result of our team's attacking moves or spaces left by the opponent team.
- Extraordinary statistical parameters that could be an advantage for our team when attacking.

All these behaviors can be determined by certain match situations such as:

- Score (for or against)
- Goal (for or against)
- Minute or stage of the match
- Own or opponent's substitutions
- Possible tactical modifications which these substitutions may cause.
- Positioning changes.
- Functioning changes.
- Cautions (for or against)
- Numerical superiority or inferiority.
- The effect of the VAR (video assistant referee)
- Others

In this course we just name them, but they will be addressed in more detail later in this certificate.

In this decisive observation and data collection process we must be aware of the difficulties that may appear.

- We have to assume that what I can observe is part of what happens. I cannot expect to collect each piece of data. Generally, there is nothing a team never does or anything their players always do. This opens up such a wide range that it will not be useful to analyze it. Therefore, we will have to focus on actions that occur on a regular basis, that is, **regularities** that help us analyze what is happening. "The analysis of the game in football is the process of collecting and examining the collective and individual behaviors from teams and players during matches, trying to identify certain regularities in them" (Vales Vázquez, 2012. p. 19).

- We have to focus on the interesting part.

- Our own or opponent's strengths or weaknesses are usually relevant.

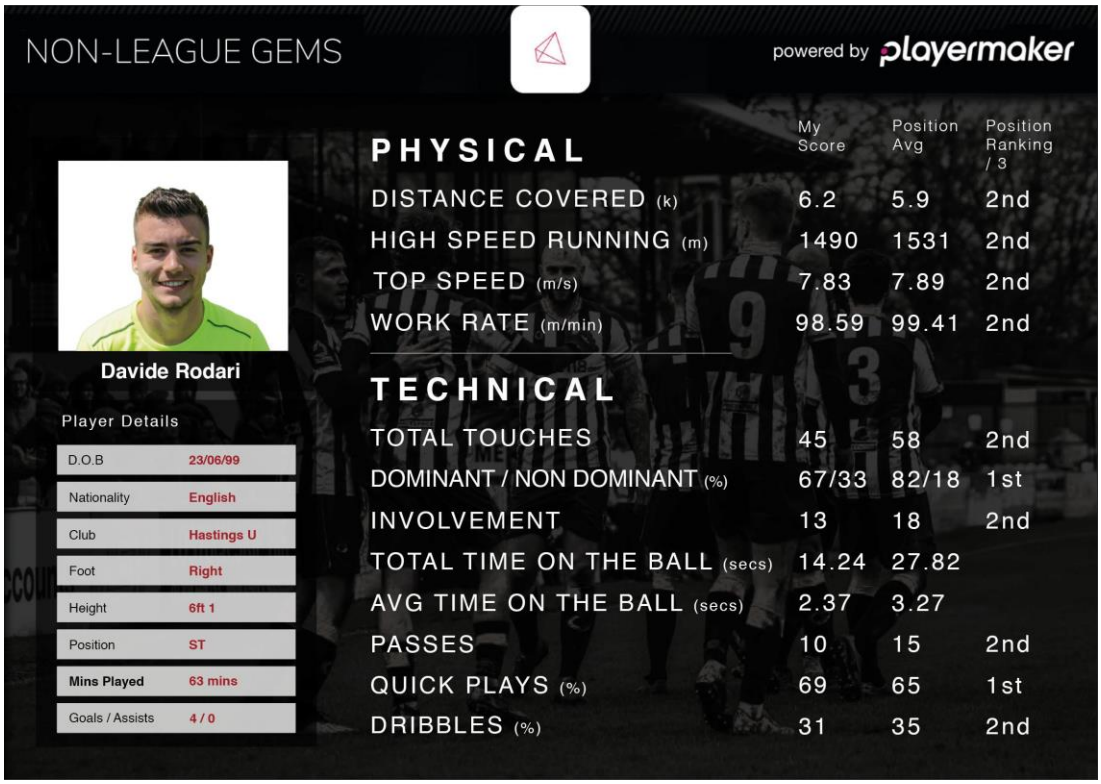
- We have to cope with these strengths and weaknesses, that is to say, how do my strengths and weaknesses fit with the opponent's ones? This is already part of the process of finding solutions that we believe the analyst should be part of, at least for information purposes.

- This information must be reliable, useful, meaningful and operational due to the moment in which it is produced and its possible influence on the decision-making of the coaching staff, the coach and/or the players.

- Finally, we must assess that in most cases **I only recognize what I know**, so we must be open to receive and collect new information about the game. This attitude will certainly make us enhance the quality of our observation.

Once we have collected the information during the game, we will deal with the tools and protocols that can be set to make sure that such data and ratings are received by the coaching staff.

Figure 10: Receiving real-time individual data about a player during the match using Playermaker



Source: [Image of receiving real-time individual data about a player during the match using Playermake]. 2019. Retrieved from https://twitter.com/Non_LeagueGems/status/1199634779085459456?s=20

Tools

Current technology allow us to send information, comments, images, video clips that report in real time what can be potentially corrected in a match from the stand to the bench. Moreover, these images and videos can even be edited with drawing techniques.

The mobile may be more than enough to report this data quickly to the bench. A tablet with programs or platforms that connect us to the bench and allow us to share images in real time. The course "Implantation ad technological processes of analysis" of this certificate deals with the use of these tools more deeply.

Next, we will see an example of how we can get individual data in real time about a player during the match. Transmitting information to the bench can clearly be done instantaneously even if the information is previously filtered or not.

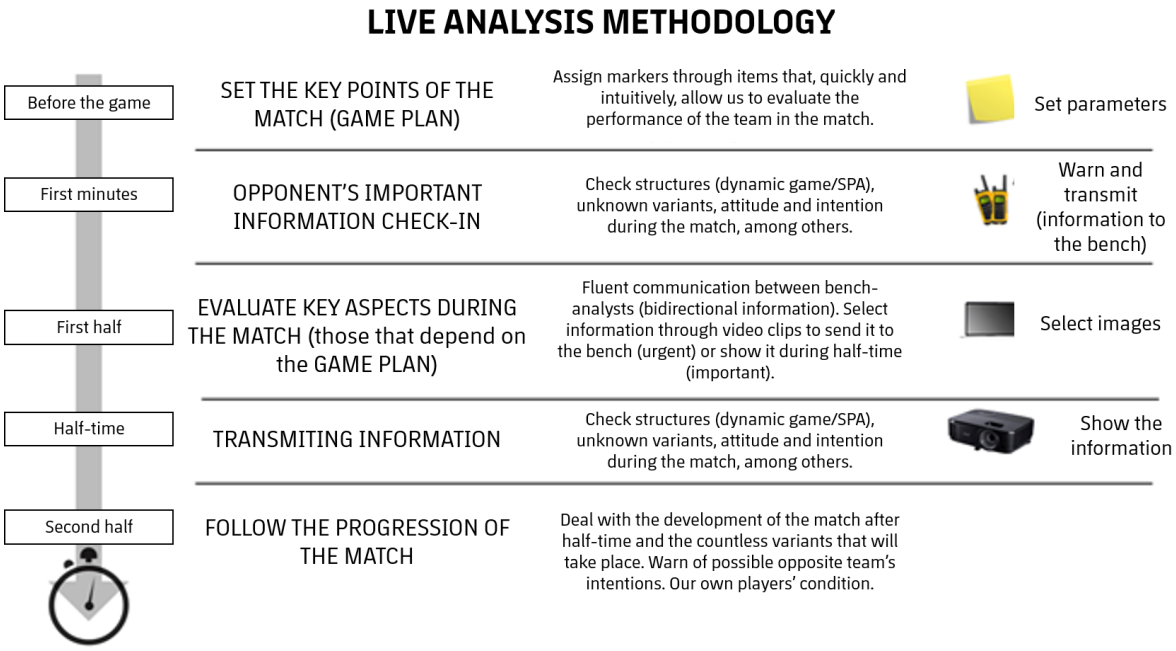
Protocols

Do not forget that the objective of a good portion of the analysis during the match is intended to help the coach in his decision-making process.

That is why that data transmission protocol addressed to the coach must be clear and operational.

The privileged position of the analyst during the match gives importance to his observation. Usually, the analyst stays connected with some other member of the coaching staff located on the bench. In general, the second coach or assistant coach. He will filter the information that comes from the analyst, and together with his own observations, he will send the first coach or head coach a filtered assessment of what is happening during the match.

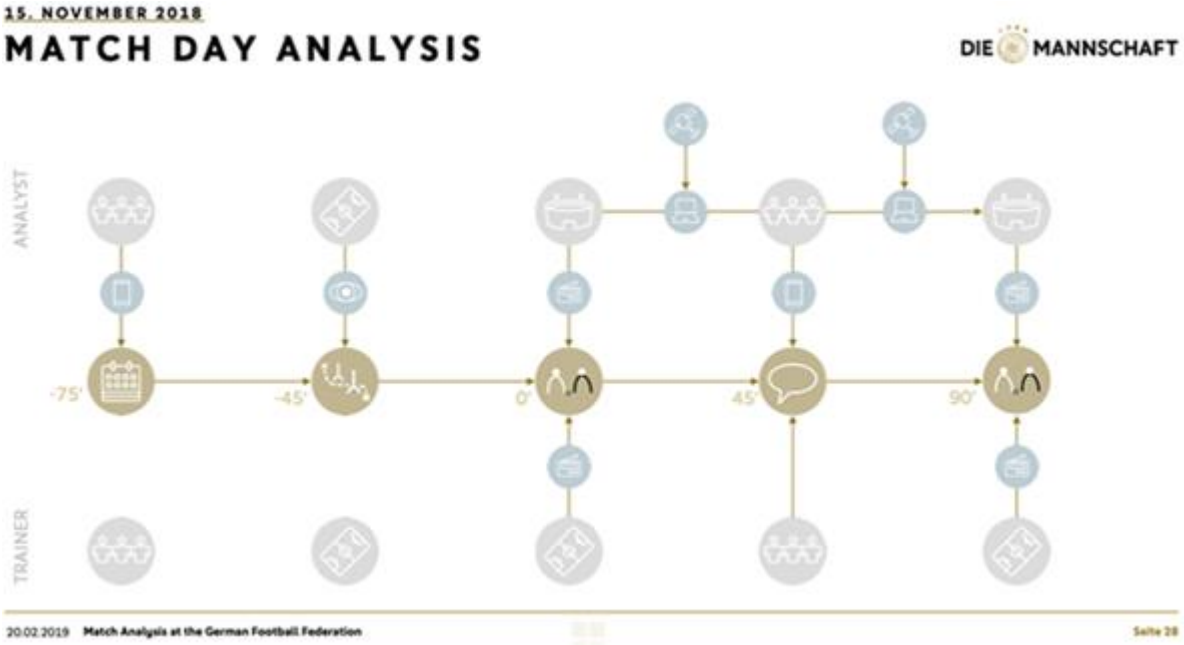
Figure 11: Live analysis methodology



Source: prepared by the author.

In the previous figure we see an example of the dynamics or protocol that can be set using some tools and in a very specific context. As we said repeatedly, you will have to adapt it to your own circumstances and resources, that is why it is important to assess altogether what I want to transmit and what I can transmit. In the figure below, you will find very visual information about the analysts and coaching staff's action protocol during the match.

Figure 12: Analysts and coaching staff's action protocol during a match



Source: Clemens, 2019, p.28.

2.2 Analysis and transmission of information during half-time

We assume that we have a limited period of time, and all participants' emotions run very high.

The half-time in a match is an important moment to correct issues that are taking place or may take place in the second part of it.

The information to be transmitted must complement the coach's speech as well as all the aforementioned corrections that he intends to make, both collectively and individually.

In order to do this, we must first be clear about a certain action protocol so that the message is sent to the player in the clearest and most coordinated way.

A. At the beginning of the half-time, the members of the coaching staff share data about the most relevant aspects observed. Meanwhile, players are recovering from the effort of the first part of the match and lowering pulsations, and if possible, they are accompanied by members of the medical staff, physiotherapists, physical trainers, among others.

B. After this, the coach has the responsibility of deciding the message to be communicated. The staff will be at the entire disposal of the coach to transfer this relevant information in groups or individually.

C. The coach can complete and reinforce this message showing images or videos that may be requested from the analyst. To do this, during the first part of the game and regardless of the images sent directly to the bench, we will collect images that will provide us with relevant information to share in the half-time of the match. That is to say, if we immediately prepare video clips, they will be useful for the coach and coaching staff to address relevant issues from the playing strategy for the second half of the match. This material must be available in case the coach requests it.
D. We will also talk about the structure of our message. We should usually follow a dynamic assessing what happened, that is, we must give an order to this information. We will follow an order after we choose a criterion by which that order is governed. Below, we will show you three examples or criteria.

- Game cycle criteria: information about our behaviors
  - In defensive position
  - Defending-attacking transition
  - Attack
  - Attacking-defending transition
  - SPA for
  - SPA against

- Own error and success criteria:
  - Own error, both individual and collective one.
    - Images and information about global actions that should not be repeated under any circumstances in the second half of the match and that the coach should consider assessing.
    - Errors in the control of relevant spaces.
    - Errors in the presence of the opponent during dangerous situations.
    - Specific individual errors that affect the overall strategy of the team. (It will be the coach who decides if he shows these images individually or in group, considering who is affected by the error and his possible reaction to group exposure).
  - Own success, both individual and collective ones.
    - Actions that reinforce the general strategy of the team and that we want to repeat with the same or greater degree of efficiency in the second part of the match.
    - Exemplary individual actions for the rest of the team.
    - Actions that can be decisive given the way the match is developing.
    - Potential actions that could lead to advantages over the opponent when the match continues.

- Individual or global criteria:

  - At the individual level, relevant statistical data of specific players could be shared to seek a specific reaffirmation, motivation or information about the opponent to share the possible advantages over them in the second half, this is when the remaining staff members collaborate and complete the work of the coach. We can also assess what kind of efforts I need to make and how much effort are players able to make in the remainder of the match. If we have the tool to monitor these efforts in real time, players will be able to take into consideration this aspect and even reduce the risk of injury.

  - From the global strategy perspective:

    - Reaffirm anything that entails a decisive proposal to win the match.

    - Warn about what could be a decisive consequence that leads to lose the match. We refer to such actions that must be shared as key elements to survive, either to win or by default, not to lose.

    - Other data that can help us are those that come from previously analyzed metrics, corresponding to certain contexts of the match and that will help us in the decision-making process. Specifically, we refer to behaviors in situations like:

      - Score (goals): quite against (-2 or more) quite for (+2 or more) Balanced (tie or +/-1)

      - First team/ substitute players: first team player (plays the entire first part or →60') Substitute player (plays only the second part or <30'). We could even consider the possibility of mixing both factors, that is:

      - First team player and score (quite for, quite against, balanced).

      - Substitute player and score (quite for, quite against, balanced).

The aim is to draw some conclusions, after studying previous data that help us make good decisions in lineups, call-up lists, and especially during the match (substitutions, changes in the positions of players, performance, among others).

This organization of information based on the criteria that we select will help us all to connect some situations with others, in addition to offering a very practical and concrete

map of what is happening, it will favor the decision making on issues that we intend to correct or modify.

Although the coach is in charge of these aspects, we as analysts must be prepared to help the coaching staff at the most important moment. In fact, our work is usually highly valued on these occasions by the coaching staff.

Once the work of the analyst is considered, in this critical period, we will offer information from various sources on how the half-time of the match should be tackled from the coaching staff point of view. We believe that the analyst must know and observe this process because of the enormous impact it can have on the development of the match. We must not forget that many factors influence our process of analysis and, therefore, we have to be aware of the relationship between them.
Below, we will share some basic guidelines to follow during the half-time of the match:

The coach should always avoid discussions between staff members.
The coach must rely on the performance of the players.
The coach must address personally and privately those players who inspire less confidence in that match and take advantage of the fact that they are being treated by the medical staff or replacing fluids, he must approach them to keep a more direct talk, because the rest of the team does not need so much attention.
The coach must correct in a positive and stimulating way, emphasizing if necessary, a positive vision during the second part.
The coach can raise his voice if this may provide a further spur for some players, but in general, most players do not take advantage of wild rage, excessive shouting and much less disrespect, although you can "punch the table" you must know in advance how and when to do it, without allowing your emotions to rule your actions.
The coach must stay cold and talk with his assistants about the necessary modifications to get a good result in the match
The coach must make it clear to his players that the match has two parts and that the first one is over. If the first went well, you have to start the second one with the same intensity and order. However, if it went wrong, it is time to get rid of mistakes, and it is a second chance for players to ingratiate themselves, with their peers and their audience.
The coach is limited in time, and has to decide, for example, if the team needs a push to get out of lethargy, or on the contrary support and new goals to continue in the first half line.
It is important not to "scramble" the boards or the heads of players with tactical speeches. Clear and brief ideas. The emotional state of players is

not appropriate to pay attention to a long tactical talk. If there are changes, the coach must explain them in simple terms.
The coach, in order to unite the team, whatever the eventual outcome, must force all the members of the staff (except for some substitute player who is warming to go out and play) to be in the locker room during the half-time to encourage the group.
The coach must also prevent players from cooling down when they are in the locker room and on the return to the playing field. (Luque, 2014, https://bit.ly/39mmrZk)

In this other document we can appreciate some very important aspects, I would say innovative and at the same time full of common sense, about the half-time talk. They are viewed from the training football perspective but they are, in most cases, extrapolated to professional football. In fact, this article offers several examples of high-level teams.

We want to highlight from this article the role given to the player in the analysis process during the half-time.

One of the main objectives of grassroots football should be to promote **the players' self-knowledge and self-reflection**, thus enabling them to be aware of their strengths and weaknesses, aiming at maximizing the former and minimizing the latter. Likewise, self-knowledge and self-reflection are the basis for emotional self-regulation and social adaptation, key elements for the personal development of the individual. All this allows the player to be able to address the situations he faces in a more objective and analytical way. **In order to develop these kinds of skills in our talks,** we must be aware that the player must be the main protagonist, the "talking circle" facilitates comprehension and the final message must also be positive. **We can encourage this doing the following:**

1. **According to the individual objectives set at the beginning of the match**: ask each child if they are carrying out their objectives, what difficulties they are facing and how they can improve them.
2. **Focusing on the collective objectives**: we must be capable of analyzing one by one if they have been able to achieve them individually and if not how they can solve this.
3. It is also possible that the match is not taking place within the initial plan so **the questions should address a personal analysis of what is happening and what they can contribute from an individual level to improve the situation**.
(Lagar, 2018, https://bit.ly/2ZvF9Jl)

In the video of Xesco Espar (2017) entitled *La charla de la media parte* (The half-time talk), the coach explains the process to follow during the half-time talk:
https://www.youtube.com/watch?v=A5GUdn2bC8I&t=70s

We think that one of the most important messages to highlight is the need to structure the procedure and create a protocol so that we do not forget to communicate anything. This does not mean that we are inflexible, but if we organize ourselves properly, we will decide what to say and what not to, but we will avoid forgetting some important content.

From the analyst's point of view, it can help us to connect the coach's needs for information at this stage with the tools we have available to meet that demand.

Espar (2017) distinguishes two parts and within them other moments or objectives:

- **Out of the locker room:**
  - Assessing the 1st part (defense, defending-attacking transition, attack, attacking-defending transition) choose an order or script. Within this assessment and order we will have to talk about:
    - What have we done well?
    - What have we done wrong?
  - Deciding on the instructions for the 2nd part (Make a decision according to the importance)
- **Inside the locker room:**
  - First, communicate the things that we have done well and then communicate the things that we have done wrong.
  - Leave the instructions for the 2nd part. It is the moment in which we offer solutions, therefore, we must avoid as far as possible finding someone to blame, seeking out those responsible or criticizing.
  - Finish the talk with a phrase that generates confidence, motivation. You can also pose a challenge.

In short, try to analyze quickly, but in an efficient way, and transmit the message correctly within a critical period of time. For this we consider that we must:

- Know ourselves
- Know our team and coaching staff
- Know how others see us (coaching staff, players)
- Predict the impact of our message
- And finally be connected to the team to perceive what they feel at that moment.

We understand that these aspects will help us achieve the objective of being useful to the group and the coaching staff.

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