

Module 1. Introduction to video observation

In this module 1, we will try to establish a starting point to know the type of observation that we carry out in the formative football of FC Barcelona. We want to make it clear from the beginning that, from now on, we will name the analyst's character as the observer. During the module, we will understand the reason for this change in terminology.

We will see the beginnings of video observation through a brief introduction to find out where we come from within the analysis in team sports. Likewise, we will show the tools that have been created to satisfy the observer's needs and, finally, the methodology developed by the club in the combination of two departments, designed for the improvement and growth in the observation of formative football.

Unit 1.1 Evolution of video observation

Introduction

The use of observation to collect information is a widely used and valued resource to optimize the performance of players and teams (Garganta, 2000) and to record or observe everything that happens during sporting activity. These objective data allow a qualitative and quantitative control of the observed action / s (Hernández Mendo, 1996).

Over the years, tactical decisions have increased their complexity, such as game formations or game tactics (Rein and Memmert, 2016). And in this sense, in the last 20 to 30 years, digital video technology has dramatically modified the observation of football performance (Carling, Williams and Really, 2005), already counting with coaches' support. Currently, we can already see how the team's training sessions are observed to influence its improvement.

We have not always been lucky enough to work with current computer programs and software. We have different functions that help us make a more qualitative and quantitative observation of our team's game faster and more detailedly. We could say that observation through new technologies is relatively recent. Adapting Big Data technologies for football research and analysis can provide solutions to some of the critical problems that observers might have. Thus, novel methods and software to analyse

data and understand the team's tactical performance in elite football may be within reach (Rein and Memmert, 2016).

Next, I will show the first works where the computer was used as a support element.

Table 1: Specific studies in football in which the computer has been used as a support system

Date	Author
1982	A. Defour
1983	F Church and Huges; Franks and Goodman
1985, 1986 and 1987	R Tiborgh and Van Gool; Church and Hughes; Franks and Goodman
1988	Ali; Chervenjakovet al. Gréagheigne; Hudges et al.; Luhtanen; Ohanshi et al.; Rhodes et al; Suzuki et al.; Treadwell; Yamanaka et al.
1989	Dufour; Gréagheigne; Partridge and Franks.
1990	Ali and Farrally; Greagheigne
1991	D Rico and Bangsbo; Winkler; Gréagheigne; HuBishovets
1992	D Rico and Bangsbo; Winkler; Gréagheigne; Hudges
1993	Bishovets et al .; Claudino; Erdman; Gerish and Reichelt; Hughes; Ohashi et al .; Pino et al .; Yamanaka et al.
1994	Dufour; Kawai et al .; Loy; Yamanaka et al.
1995	Bacconi and Marella; Garbarino et al .; Melli
1996	Loy; Müller; and Lorenz
1997	Gréahaigne et al .; Olsen and Larsen

Source: Sánchez, 2015. p. 26.

In the 80s, analysis studies in football began to take place with the support of computer science. But let's go back to the beginning: some 40 years ago, team sports were analysed manually (hand notation), based on the technique called "paper and pencil" (Reep and Benjamin, 1968; Reilly and Thomas, 1976). Later, it was modernised and went to hand notation with an oral account. Reilly and Thomas (1976) used the method of verbalising on tape what the player they were watching was doing in a video game.

However, over the years, technology has advanced, allowing the field of video observation and analysis to evolve. When computing becomes part of a tool for video observation, it will enable us to carry out an observation live or later in the video. Afterward, analysing the game with the video made it possible to increase the parameters to be recorded. Besides, it was possible to see the different game situations, both for individual players and the team.



With this modernisation underway, some studies showed observation with a traditional QWERTY keyboard. People programmed the keys to have a specific code (Olsen and Larsen, 1997; Hughes and Pettit, 2001). These studies led to an evolution of these keyboards, providing them with a more significant number of keys. These were assigned a concept to record, which facilitated quick data entering. Franks (1988), Partridge and Franks (1989), and Dufour (1989) were in charge at that time of developing these special keyboards for recording actions in football. We could compare this with what we currently have, the so-called "keypads," where each observer creates his template to "tag" everything he wants to record from the game analysis or his team or the opponent's training.

We already have different platforms, software, and programs where we find individual and collective statistics from teams and players, the synchronization with the game video, live registration, etc. It is essential to understand that the events that occur in a match or training session and the positional data that can be obtained in them, taken as isolated data or information, are not enough to completely understand individual and collective performance within the complexity that sport implies. The integration of the data that is collected through these and other sources of information allows, thanks to the observer's role - which collects, but, in turn, interprets and correlates the obtained information - generating a complete analysis, with relevant and quality information for the technical staff and the athletes of the own team (Castellano, et al., 2019).

We should not isolate this work from the rest of the professionals who can participate in a club's structure since it aims at interdisciplinary work, where communication is fluid and allows enriching each of the work areas that make up teamwork (figure 1).



Figure 1: Example of an ecosystem made up of different profiles of analysts and experts who collaborate with the technical staff



Source: Castellano, et al., 2019. p. 16.

New technologies in football

With the evolution at the computer level in recent years in football, everything has become more professional. Not only do professional clubs have the figure of the observer, but more modest or amateur level clubs already have a person in charge of carrying out this task.

In this section, I want to show the range of possibilities we find in the market to learn about the different tools we can count on, according to our needs. I am sure that there may be an infinite number of other programs, but I will try to show a variety that can meet the needs of all realities, not just on a professional level.

As we progress through the course, we will see how the practical part is observed by the own team, both in training sessions and games. Therefore, in these modules, we will talk

about programs that we use for self-analysis. Next, I will show different programs according to the application and function they provide, among which are those with which we work at the club.

We will divide the programs according to their functionality:

- Video Analysis Software:
 - SportsCode
 - Angles
 - Nacsport
 - Er1c
 - Dartfish
 - Métrica Play

- Amateur video analysis software:
 - Longo Match

- Tactical boards:
 - TacticalPad
 - RXFutbol
 - Efficiency Match
 - Coplays
 - Coach Tactical Board

- Big DataPrograms
 - Opta
 - MediaCoach

- Platforms for professional use
 - Wyscout
 - InStat Football

Video Analysis Software

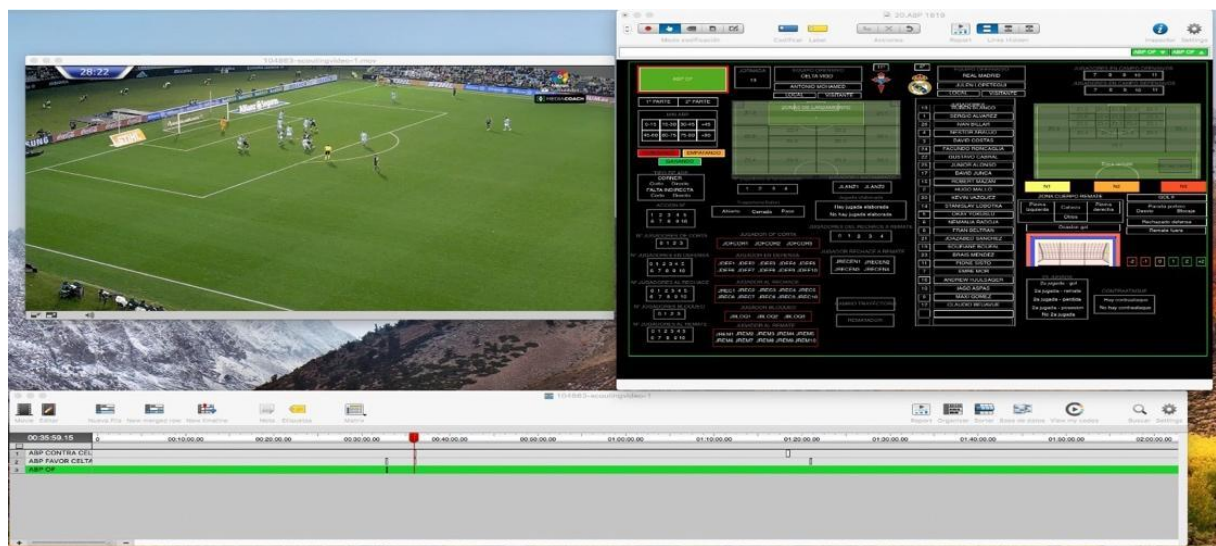
- **SportsCode**

We could say that different elite clubs use this software mostly. It is a program that helps us analyse the match or training session. This software is used for live cuts or post-match analysis. Its use is very intuitive: you work with the video, a keypad created by the observer, depending on what you are interested in observing to make the tagging, and a timeline that records all the made cuts. In addition, it allows us to create databases through the Sorter, where everything that we have been cutting is recapped and, also,



export the videos. This is one of the programs we currently use at the club, either for live or post-match observation. We have created different keypads depending on the observation we want to make. It allows us to work with observations made by our colleagues by passing us the package they have created (video and timeline) or just the timeline through a file that we can import to our computer to continue making the relevant cuts. This contributed a lot to teamwork. The disadvantage is that the editing function to create marks, zones, etc., is not well developed.

Figure 2: SportsCode software screen in which you can see the video, keypad, and timeline (in this case, it is an observation of set pieces actions (ABP, for its letters in Spanish)



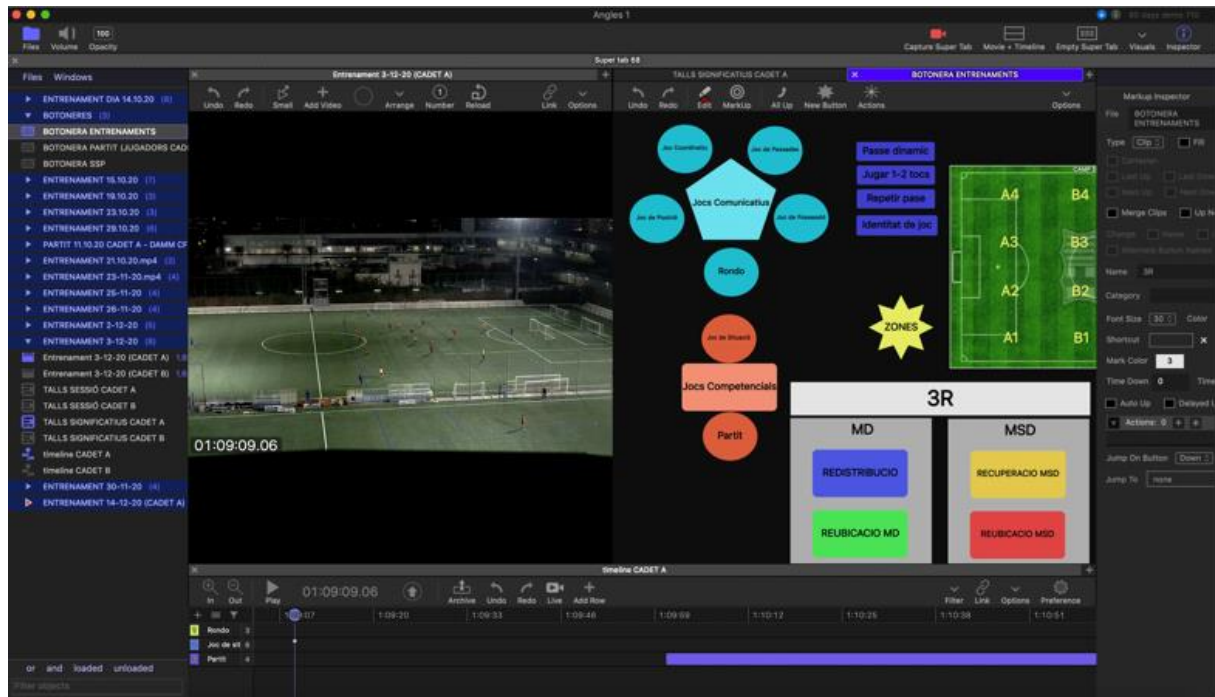
Source: Screenshot from Hudl Sportscode (Agile Sports Technologies, Inc., 2020).

- **Angles**

It is a program that allows us to observe and edit these video cuts. It uses a highly customisable interface regarding the files we want to have open, video, markup, timeline, composer, matrix, etc. It also allows you to have the observations of previous days on the same screen to access them at the same time you want. This is possible without having to close the work that is being done then. We can create the markup according to our needs, with different drawings, shapes, images, etc. When editing, we can zoom in on the video, draw on it, make marks, among other options. Angles is a program that we have started using this season, and we are delighted with it as observers. It allows us to have everything within reach on the same screen. My experience has shown me that it is a very complete and easy-to-use program.



Figure 3: Angles software screen showing the video, markup, timeline, and the observations made in previous days



Source: Angles screenshot (TraLabHoldings, 2020)

- **Nacsport**

It is a Spanish video analysis program that offers different versions for different user profiles (a total of five different packages) and does not have a free version. Each of them has different characteristics depending on their price. The interface is like the other programs, as well as the video, keypad, and timeline. It allows us to draw on the images and screenshots that we want. It may be one of the most complex programs to use, as it has many options available.

Figure 5: ERIC software screen with the keypad made according to specific interests



Source: ERIC Sport, 2016, <https://bit.ly/2NATC5i>

- **Dartfish**

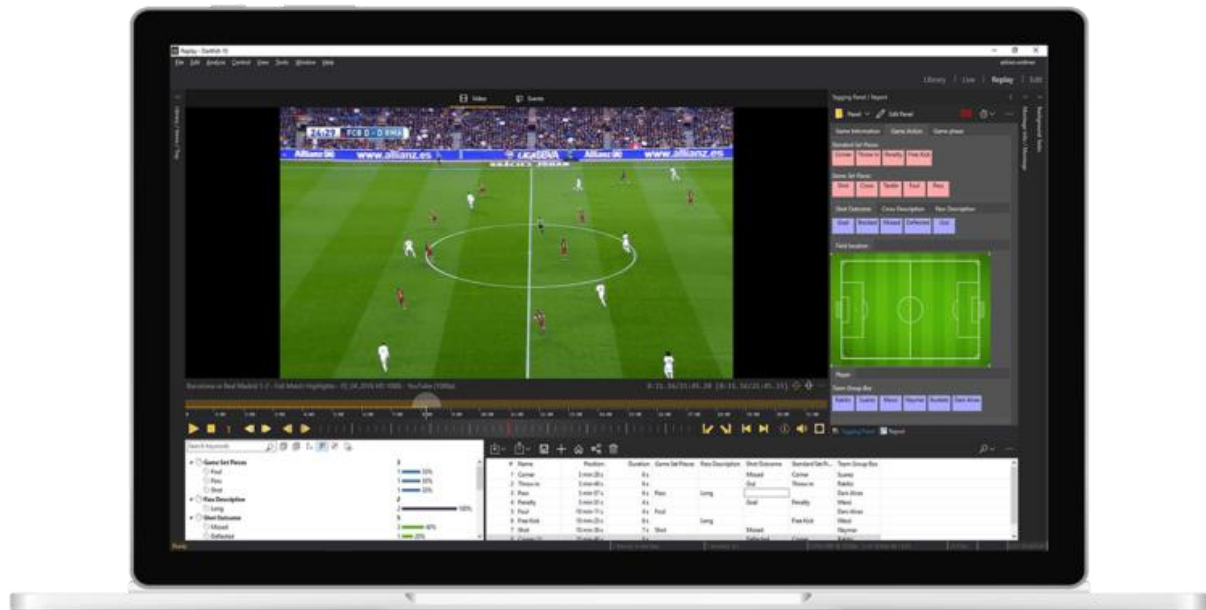
It allows visualising instantly the most critical situations that the observer identified. We can quickly export the information obtained and create interactive reports with the technical staff or athletes. If you want to establish an order of priority in the actions to highlight, you can filter and thus identify the most relevant activities of the game or training.

It instantly provides a large amount of visual information that helps the observer share quality information with his team.

The large amount of data obtained allows for generating statistical reports with many details, both from the own and opposing teams.



Figure 6: DARTFISH software screen



Source: Sport Performance, 2018, <http://bit.ly/38QeJrp>

- **Métrica Play**

It allows you to "track" any video, draw on the video you are working with, create playlists and specific clips so that the information to be provided is clear and easy to understand for the athlete and the technical staff. In this way, fluid and professional interaction with the team is achieved since it has beneficial resources, such as magnifying glasses, the distance between players, arrows, the identity of the players, lines or movements that are dynamically mobilized with the players, etc.

It is also used for types of data analysis when it is not necessary to know specific identities. The coordinates of the goalkeepers and the ten field players of each team are obtained, which allows analysing different aspects of the game. In addition, it will enable making personalised reports according to the needs of each technical staff.



Figure 7: Metrica Play software screen



Source: Métrica Sport, s.f., <http://bit.ly/38Szl3R>

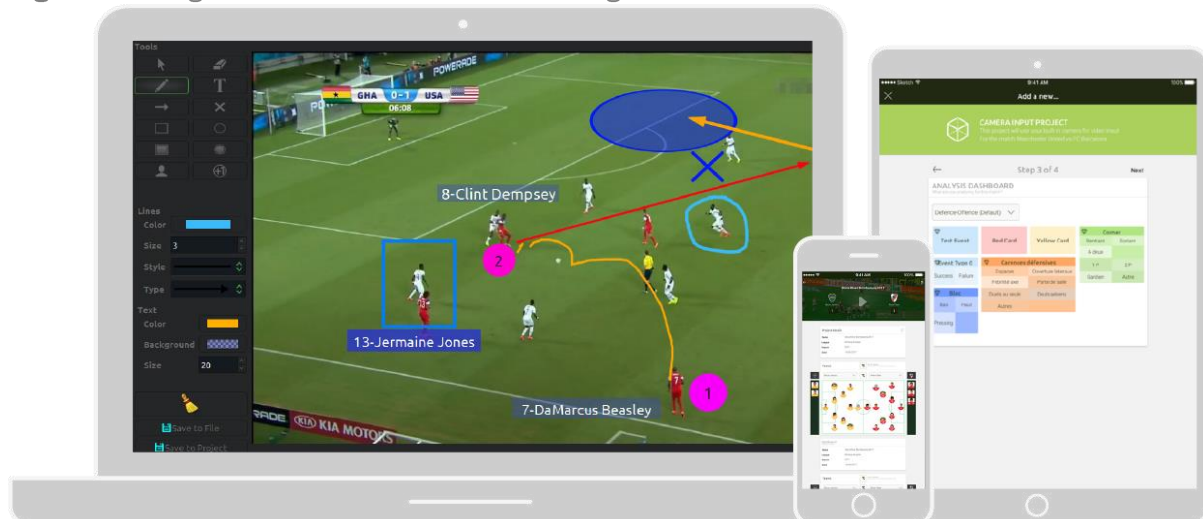
Amateur video software analysis

- **Longo Match**

Free use software that provides tools to perform analysis through video use. It allows making video cuts of specific actions of the game and generating image screenshots to later intervene them with drawings for explaining relevant concepts. It is optimised to work with resolutions up to 4k.

It allows you to view the events that have been tagged and share them via Wi-Fi with the technical staff. This software can generate reports simultaneously with advanced statistics about the game.

Figure 8: Longo Match software screen using different devices



Source: Longo Match, s.f., <http://bit.ly/3eUpKvF>

Tactical boards

● TacticalPad

Software used for tactical analysis, drawing training tasks, and planning sessions. We can use it in 2D and 3D to establish static and moving drawings from different perspectives. This option allows us to see possible progressions or alternatives of the situations analysed or to be presented.

It is possible to export the images and videos and even save the project in an editable format.

Easy and intuitive use.

Figure 9: TacticalPad software screen



Source: Tactical Pad, s.f., <http://bit.ly/20LBdmL>

- **RXFutbol**

This software also has a 2D and 3D board, automatically exporting a 2D project to 3D. It also allows having a vision of different perspectives of the playing field to observe a training task from different angles. It has a wide variety of gym elements, making it possible to design physical or combined training tasks. It has rondos and small sided games automated.



Figure 10: RXFutbol software screen



Source: RX Fútbol, s.f., <http://bit.ly/3scQ0KN>

- **Efficiency Match**

This app is available for Ipad and iPhone. It has an animation library that allows you to customise your work according to the criteria used. It offers the possibility of scheduling your training sessions to plan micro and macro training cycles.

It has a handy option to develop the training session and preview it to show the technical staff and the athletes before a training session. You can export the entire session in PDF if you want to have the printed material.



Figure 11: Efficiency Match software screen



Source: Efficiency Match Sport, s.f., <http://bit.ly/3bXhhWM>

- **CoPlays**

An application that allows you to create different games, schemes, and animated exercises depending on each coach's needs. It is available for use on computers, laptops, and mobiles. It allows integrating the training tasks that other coaches have designed and thus maintaining a coherent line of work. It offers the possibility of creating, sharing, and scheduling training sessions to integrate all the information into this application, which facilitates and speeds up access. It has a beneficial function that allows you to exchange feedback with the technical staff and team players. In this way, the time is used wisely during the session or once it is finished.

Figure 12: CoPlays software screen



Source: Coplays, 2017, <https://bit.ly/3cPlSJM>

- **Coach Tactic Board**

App for mobile devices has a free version available with some restricted functions, but which is used to design training tasks and tactical situations, with a series of functional elements that facilitate drawing. It allows you to select different portions of the playing field to focus on a specific sector in case, for example, you want to capture a particular concept. You can load the team's data and give identity to each player for a better and faster understanding of presented indications or feedback. In addition, it offers the possibility of exporting the training tasks designed to share them later with the work team.

Figure 13: Coach Tactic Board software screen



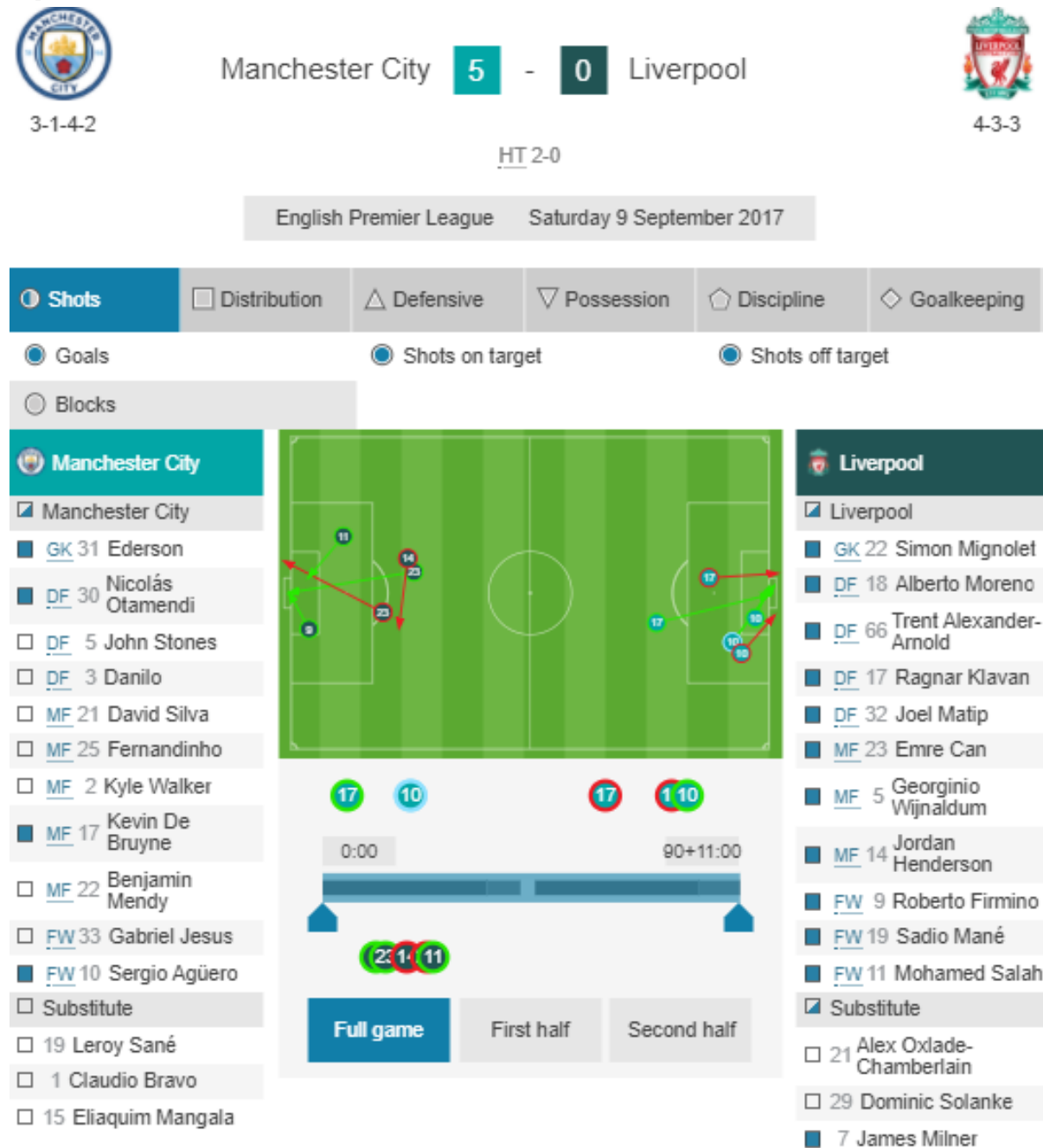
Source: [Untitled image on Coach Tactic Board software screen], s.f., <http://bit.ly/3bYQ85N>

Big Data Programs

- **OPTA**

A platform that provides a large amount of data, thanks to a team of analysts who study the game from different parameters using mathematical algorithms (Sánchez, 2015). They do so through a personalized data collection that guarantees reliable, accurate, and fast data from other world leagues. They offer tools that ensure an adequate solution to each user's needs, technologies, and platforms, which is very useful for analysis departments.

Figure 14: One of the OPTA platform-tools screen



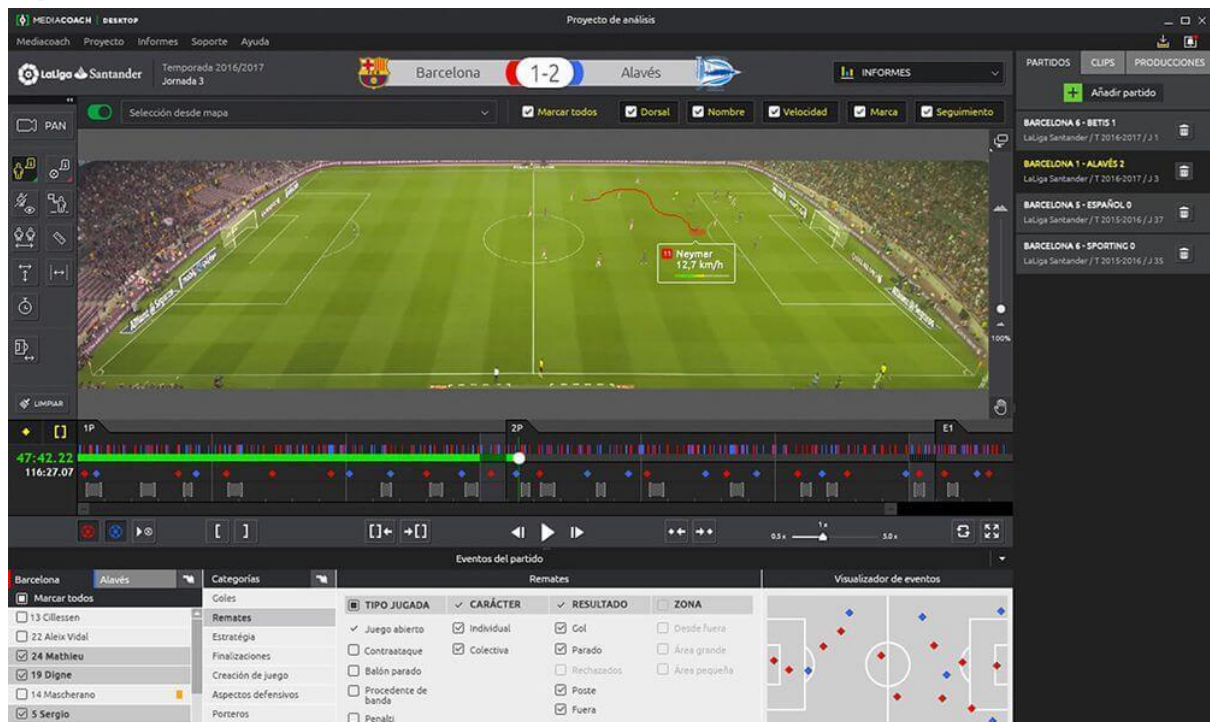
Source: Stat Perform, s.f., <http://bit.ly/30XtfJU>

• Mediacoach

This is a professional tool designed for first and second-division clubs in Spain. It has a monitoring system in all the stadiums participating in these competitions and performs video analysis with physical and tactical data. The data obtained is stored on a server and available for all teams needing general and specific information. It offers the possibility of downloading videos of your own and the opponent's team for analysis. After a controversial match, the video sent to the clubs is a panoramic video and a television video, apart from the match data file.



Figure 15: Mediacoach software screen



Source: Media Pro, s.f., <http://bit.ly/38SBX0n>

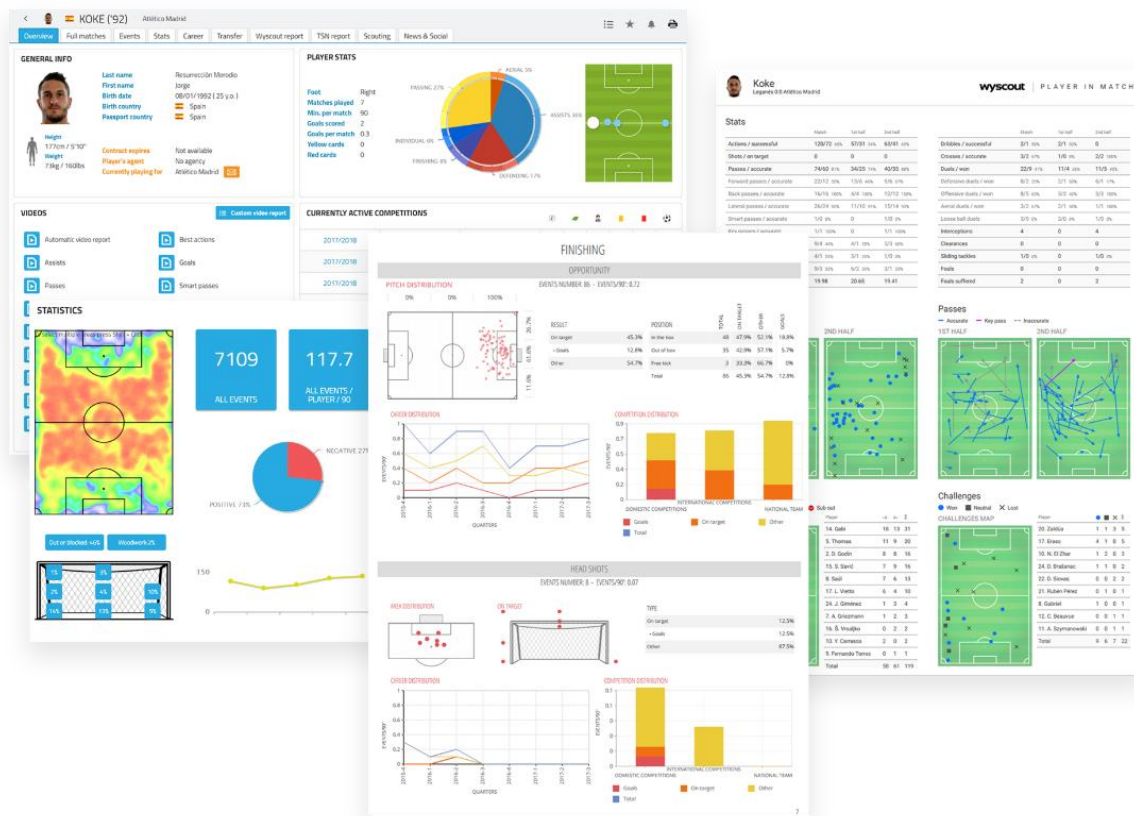
Platforms for professional use

• Wyscout

This is a platform for data, videos, statistics, and specific game planning tools, with a lot of experience in the market, which allows the technical-tactical analysis of individual players and football teams from all over the world. It is a handy tool for scouting, such an important action in analysis departments.

When viewing the available videos, it is possible to select specific actions by a player or a team. In turn, with the data offered, they can make comparisons between players for a deeper analysis. It provides professional reports with all the statistical data necessary for quality analysis.

Figure 16: Wyscout software screen



Source: Wyscout, s.f., <http://bit.ly/318T3mt>

● InStat Football

Complete software that can supply a large amount of data to the clubs' analysis departments and technical secretariats.

It allows access to reports on players, teams, games, and matches highlights, with a wide variety of data valid for the technical staff and the players themselves. It has interactive tables that are easy to read and understand.

It offers access to thousands of players' profiles to find out the specific data, a valuable tool for scouting.

The videos have a high-quality resolution filmed in 4K and obtaining technical-tactical data provides fitness data.

A helpful tool is a possibility of obtaining statistics and video analysis of lower categories (over 13 years of age), which allows a follow-up of players who may be potential professionals.



Figure 17: InStat Football software screen



Source: InStat Sport, s.f., <http://bit.ly/2QeOpAV>

Example of a live observation of FC Barcelona U-19

In that section, we can see the different software tools that allow or help us make our observations more qualitative and adaptable to each analyst's reality every day. This is valid for elite teams as well as for more modest or amateur level teams. We have tried to adjust and explain each of the options proposed above to see the different types of programs and software that can satisfy each observer's needs in their reality. In the options, you can see platforms where it is possible to find a lot of information about players from other countries, from different categories, and platforms where they provide us with data from players' eventing and tracking, which would correspond more to the elite level. We can use these tools to provide information before the match, before training sessions, or during training sessions, such as boards or programs used on different iPads or tablets simultaneously, and software that can help us observe, either post-match or live.

For this, I would like to give an example of the reality that a U-19 team experiences, in this case, Juvenil A of Futbol Club Barcelona. I will show how they register live during the



matches, either as a home or away. Besides, we will see how they transfer this information during the rest of the game or with already cut and detailed information immediately after the match.

To begin with, we will refer to the program they use to perform this task. One of the programs described above is SportsCode, the club's video analysis tool currently used. They make the keypad with this same program, which the club created. The keypad was not created directly by the youth observer, but in general for the live analysis, in this case, of professional teams such as Barça B or Juvenil A. Also, teams can use this type of keypad for live registration.

The camera they use to record the match is a Sony 4K Handycam, a camera that has excellent references from the observer himself.

Once the program used and with which camera the game is recorded have been defined, I will explain the process.

Together with another member of the staff, the observer makes a live video by connecting the camera to the observer's laptop, which, in this case, is a Mac Apple laptop.

These two are connected through different adapters, and on the observer's screen the keypad appears with the timeline where everything he cuts will be recorded. The observer also counts with the match video that is being done live.

Once the match is over, the observer cuts all the actions that he thinks are relevant and stores them in different folders that he creates. Thus, he builds a repository of all these video cuts to show them later and work on them.

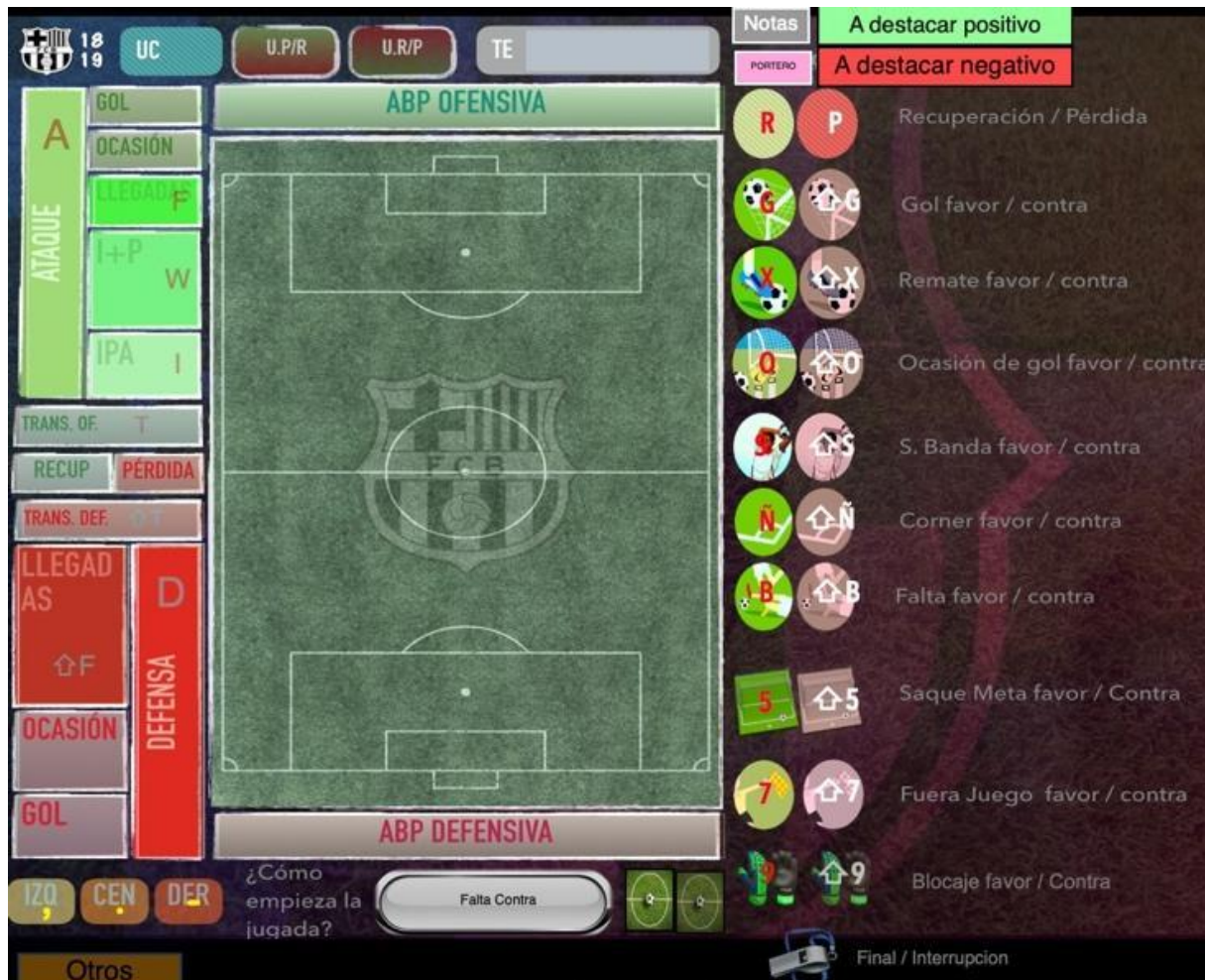
One of the most important details is that our observer is connected through audio phonic devices, such as walkie-talkies, with the second trainer on the bench. This indicates aspects that considers relevant or that they see from the bench so that the observer takes them into account when making these video cuts. The observer and the assistant coach are constantly communicating to be clear about what they are seeing and what they want to emphasise during the break to share it with the players.

Once this first part is finished, the observer sends these cuts that are saved in the different folders to the second trainer, who generates a small video with the most relevant and qualitative actions. It is not a very extensive video; they are specific actions that they believe should be highlighted so that the coach is aware of them, visualizes them, and knows where to focus part of the talk that he wants to give at half-time.



Throughout the match, the observer is the one who notes different aspects to highlight, whether positive or negative. These same notes are transferred to the coaching staff to consider if they want to highlight them at half-time.

Figure 18: Observer's notes



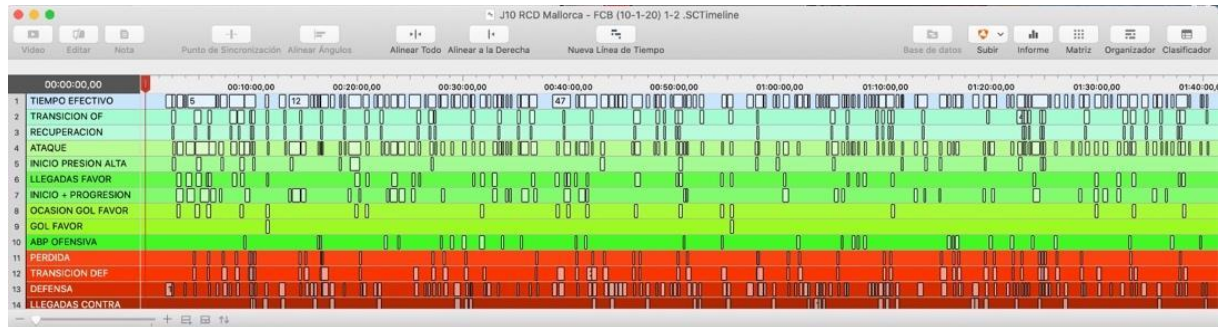
Source: Screenshot from Hudl Sportscode (Agile Sports Technologies, Inc., 2020).

Gol	Goal
ocasión	chance
llegada	Arrival
ataque	Attack
trans. of	Build-up transition
recup	recovery of the ball

pérdida	loss of the ball
trans. def.	Defensive transition
IZQ	Left
Cen	Center
Der	Right
Otros	Others
ABP ofensiva	Offensive ABP
ABP defensiva	Defensive ABP
¿cómo empieza la jugada?	How does the play start?
Falta contra	Offensive Foul
Notas	Notes
Portero	goalkeeper
A destacar positivo	positive aspects to highlight
A destacar negativo	negatives aspects to highlight
Recuperación/pérdida	Recovering/losing ball
Gol favor/contra	Goal for / against
Remate favor/contra	kicks for / against
oportunidad de gol favor/contra	goal opportunity for / against
S banda favor/contra	wing for / against
Corner favor/contra	Corner for / against
Falta favor/contra	Faul for / against
Saque meta favor/contra	kicks for / against
Fuera juego favor/contra	Out game for / against
Blocaje favor/contra	To block for / against
Final/interrupción	End/interruption

The observer tells us that the analysis he does live allows him to give immediate feedback at the game's half-time and serves as a post-game analysis since he cuts different actions that help work on the training microcycle the following week.

Once the game is over, the observer, who has saved these video cuts in a repository or



folders, can send them through platforms, upload them in club repositories or send them directly to other staff members. Then, the staff can visualise the actions they have observed and consider them relevant to highlight.

This is just an example of the reality that an observer of the Youth category of Fútbol Club Barcelona can find, in this case, a U-19 category. This gives a quality plus to the team, the staff, and the observer's work since they can immediately have feedback, which allows them time to correct tactical aspects of the game.

Figure 19: Screenshot of the tool used by the live observer, where you can see the keypad and the timeline used.

Source: Authors' own work.

Unit 1.2 Observation methodology

As we said in the introduction, we change the paradigm from the analyst to the observer in formative football at the club, at the formative level. This makes sense when reading the book **What is your opponent hiding?** (Sánchez, 2015), the question “**do you look or observe?**” arises. If we look at the dictionary definitions, this is very clear:

- **To look (from Latin mirari, to admire oneself)**

1.tr. To turn one's eyes toward something.

- **Observe (from Latin observare)**

1.tr. To examine carefully.

- **Examine (from Latin examinare)**

1tr. Inquire, investigate, diligently, and carefully scan something.

2tr. Recognize the quality of something, checking for faults or errors.
(Sánchez, 2015. p. 23)

We can see the differences between the definitions and understand how the observer's figure bursts into the club. We observe and examine our entire game; we focus on our team, players, and their evolution during their season.

This second part will show how creating the FC Barcelona formative football Observer Department has been merged with the Methodology Department. We will see what their concerns, objectives, and the observer's role are within each team.

Creation of the department

When Antolín Gonzalo Martín (2020) exposes within the block of the Methodology areas of a club, he refers to creating an analysis department linked to the methodological development or the formative process of grassroots football.

When complementing tasks in constructing an analysis department, it would be interesting to incorporate their contribution to the formative process within the grassroots football structure of the club's vital forces.



Having information that provides a guide and an element of judgment to football teaching processes from a specific point of view is a tool that will optimize the process and increase the success probability within the entity and its organisation.

The analysis department may contribute to the team's formative process as follows:

- **A methodological analysis of training processes**

Monitoring the training sessions and recording those relevant parts or previously agreed on elements with the trainer in charge will allow defining the validity of the chosen method and its evolution over time. At the same time, it will enable comparing what happened today with what has evolved in the future and its past starting points. The methodology management will have an essential synergy with the analysis department by having these necessary tools to supervise and control the training processes in the different age groups. Besides, it will make the required adjustments in those teams that consider necessary a methodological reinforcement which allows maintaining the identifying mark, in form and content, that defines the institution in a formative way. (Gonzalo Martín, 2020. pp. 14-15)

This a reality at the club since the 2020-2021 season.

To understand how we got to the idea of trying to create the observer's figure within the club, I will first explain how the Analysis Department was structured before this new figure. In this way, we can better understand the need to create the observer. Before the observer's arrival, the club's Video Analyst Department consisted of different figures, roles, and functions.

But let's start with the professional teams: the first men's team, the first women's team, and the second men's team. The first men's team was made up of three analysts, in charge of their team and the opponent's team, and the different requests of the technical staff. The first women's team had two staff analysts, who oversaw their team, the opponent's team, and the different requests that the staff had. The second team, Barça B, comprises two game analysts in charge of their team, the opponent's team, and the requests from the technical staff.

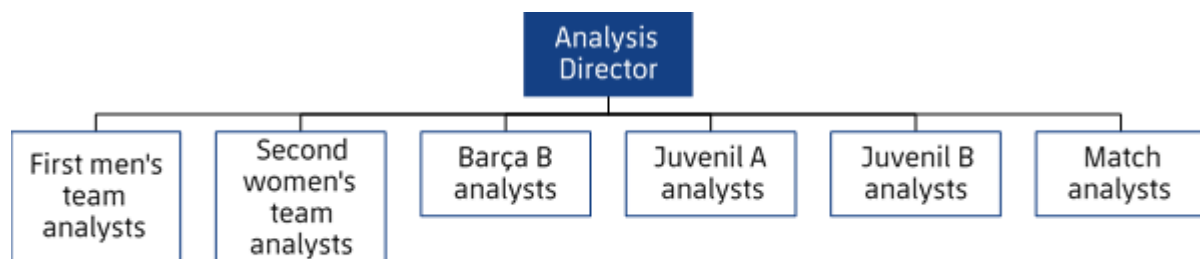
Finally, we are entering a different stage where we find the professional formative football analysts, made up of Juvenil A and Juvenil B. These two teams have their game analyst, who complies with what is requested by the staff and analyse their and the opponent's team.

We have other types of game analysts who have a job within the office. They oversee carrying out a weekly post-match analysis, but this analysis is different from that carried out by each team's analysts.

They present a report after each game to the corresponding staff so that they provide weekly post-game feedback. This function becomes a cumulative report delivered in two different periods, mid-season and at the end of the season. With this monitoring of reports, there is a qualitative control of these teams, both in professional football and formative professional football.

I will show an organisational chart to make it more straightforward how the Video Analysis Department was organised.

Figure 20: Organisational chart of the Video Analysis Department before the observer's creation.



Source: Authors' own work.

Being clear about how the Video Analysis Department was structured, the Methodology Department realizes that it has professional football and formative professional football under control. Still, it has no control over the other formative football teams from U-15 to U-7. Therefore, here is when the creation of the observer's new figure begins to take shape.

Together with the Video Analysis Department, the Methodology Department proposes creating this new figure and takes advantage of the game analysts in the office. They carry out this new function and have qualitative control of all the formative football teams from Fútbol Club Barcelona.



The Methodology Department, with the creation of this new figure, has the following three points as its main objectives:

- Implement the game idea transversally to the 19 formative football teams to reflect what we want to play and how we want to play.
- Unify the observation criteria, both in matches and training sessions, and thus ensure this game identity in all teams.
- Optimise individual players concerning the game idea. This refers to qualitative information on the different players' skills, both strengths, and weaknesses.

Once the figure of the observer becomes a reality within the club, the next step is to establish what their roles are, namely:

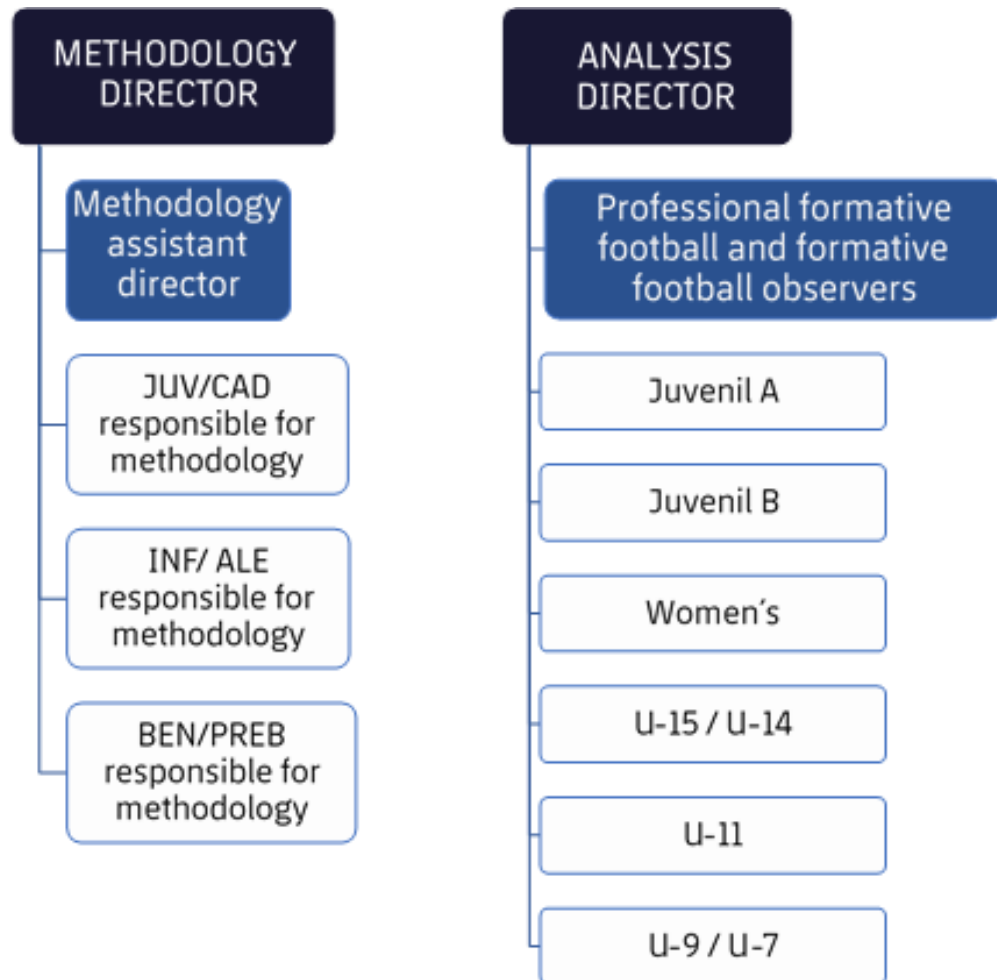
- Be a specialist in the identity of our club's game and have the best knowledge of our players in all formative football categories, in which, until now they could not give this information.
- Provide qualitative information through video support, focused solely and exclusively on the team.
- Provide qualitative information about each team's players to add an external point of view to what the coaching staff can contribute, as it usually does.

We can do this because we are constantly observing both matches and training sessions, and we can analyse the team's evolution and each player throughout the season.

Next, to finish this section, I will show an organisational chart to see the change in the department thanks to the observer's contribution.



Figure 21: Organisational chart between the Methodology Department and the Analysis Department



Source: Authors' work.

The observer

At this point, we have seen how the observer's new figure has been created, and we have seen their roles within the department. I will now explain how the observer performs his role, showing what day-to-day life is like in a football team of the Fútbol Club Barcelona.

To make it more straightforward, we are going to divide it into different points:

1. Importance of knowing the team's reality in which we are.

- Training days

We must know which training days are during the week, when and in which of the Sports City fields they take place, and with which cameras they will be recorded. It is always



good to make a calendar with the days and schedule. This helps us to have a work organisation. In case of last-minute changes, it is the club that reports about them.

- Matchday

We need to know if it will be a home match, so we identify which field and with which camera it will be recorded to make sure that the recording is scheduled. When the club is a visitor, we should know the field where the match will take place and who will make that recording.

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Table 2: Usual schedule for U-15 category. Example of a microcycle.

From October 5 th to 11 th (2020)						
Monday 5 th	Tuesday 6 th	Wednesday 7 th	Thursday 8 th	Friday, 9 th	Saturday 10 th	Sunday 11 th
19:00 - 20:40 U-15 B Field 8		19:00 - 20:40 U-15 B Field 8	19:00 - 20:40 U-15 B Field 8	19:00 - 20:40 U-15 B Field 8		12:00 - 14:00 U-15 A Field 9
19:00 - 20:40 U-15 A Field 9		19:00 - 20:40 U-15 A Field 9	19:00 - 20:40 U-15 A Field 9	19:00 - 20:40 U-15 A Field 9		12:30 - 14:00 U-15 B

Source: Authors' own work.

- Knowledge of the team's participants

We must know the number of players that make up the team, the names of each of the players, in what positions they play, and their birth date. In short, we must have as much information as possible about each of them. This makes us much more integrated within our observations, which helps us in individual and collective reports since we can see how the players evolve individually and the team.

- Knowledge of the different tasks carried out during the microcycle and the objectives we will want to work on during this week.

This is a crucial point since, as observers, having this type of information facilitates and helps us make video cuts because we already know where the coaching staff wants to direct each task or even the objectives of the microcycle. This can give them the information that interests them in a more precise manner.

2. Fluid communication between the departments involved

There must be constant communication between the Methodology Department and the Analysis Department with the observers. Besides, we need to mark a work line to follow during the week to make the corresponding observations.

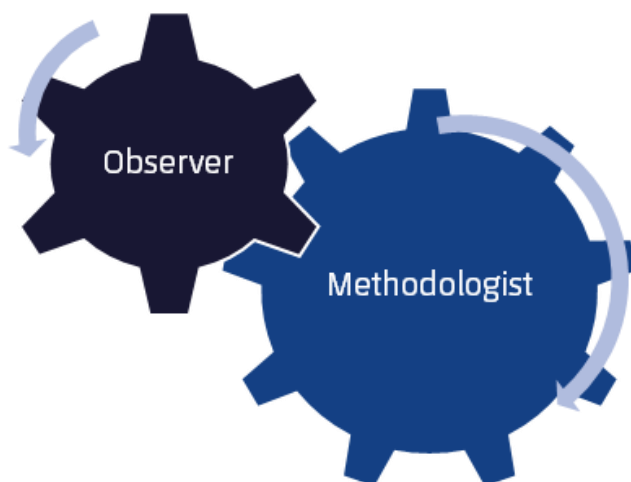


The observer, on his part, must communicate possible behaviours in training or matches that have been interesting during that microcycle. Suppose the observer is making the video cuts and sees certain behaviours that correspond to the game identity. In that case, he must notify the person responsible for the methodology about this situation once the observation is finished. Thus, this person can be aware of this fact and can exchange opinions.

- Requests for tasks or matches

Sometimes the person in charge of methodology can make explicit requests for tasks or matches that he has also considered essential to observe and make the corresponding cuts. In this context, the observers are informed to see these situations, make the appropriate video cuts, and exchange information. These two processes must be constant feedback between the observer and the methodologist.

Figure 22: Representative image of interdepartmental cooperation



Source: Authors' own work.

- Information on the current situation in which we are

The methodologist must always know what observations we have made, such as, for example, what training days we have observed, how many tasks we have cut, which matches we have observed, and so on. This is a crucial point to have complete control of the work that is being done.

(In the next module, I will explain the tools that we use to control this whole process).

3. Knowledge of the bases of our game's identity

As we have mentioned before, we concentrate on the observation of our team. We focus on the moments when our team is in possession of the ball, and when it's not, we are

interested in both moments. Before starting the observation, we must know the foundations of the game identity that represents us. This is so we know how to identify when those behaviours we are interested in cutting occur.

- When we are in possession of the ball, we must observe the following:
 - the continuity that exists in the game through the passes, identifying optimal conditions for the receiver.
 - the movements made by players near and far from the ball possessor to mobilize or attract the opponent; and
 - the mobility of our players to offer different supports to the ball possessor.

- When we are not in possession of the ball, we must observe the following:
 - how we prepare ourselves to try to recover the ball as soon as possible once we have lost its possession.
 - the players furthest from the ball who can anticipate the potential receiver, following the dynamics of the game; and
 - how players readjust their distance as regards the opponent and thus reduce their chances of playing the ball.



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