Original Article

Competence model (MCJF) for the evaluation of soccer players in youth categories of Sevilla F.C.

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Abstract:
Soccer is one of the most practiced and influential sports on the planet, where aspects such as performance, game strategy or decision making are recurrent topics of research. For the evaluation and selection of talent, instruments are used independently that measure different dimensions based on the perception of coaches and where the most used methodology is the observation of players; and where the player's perspective is not considered. Thus, the objective of this research was to evaluate the physical, psychological, technical, and tactical dimensions together to determine the sporting performance of the player depending on their position on the field. The MCJF competency model tool was used to analyze the competencies (psychological, tactical, technical, and physical) from the perspective of the youth soccer player (group B and C) and the coach.
The results show higher self-evaluation ratings for youth players than from coaches. However, few differences were observed between the 'B' and 'C' teams, and they placed their competence level at 3 (improvement process). As for the position on the field, the perception of the players determines the evaluations in the technical and tactical dimensions, as does the perception of the coach. Through the application of the MCJF, collecting the perception of players and coaches, provided relevant information on the psychological, physical, tactical, and technical performance of the player by position, as well as the differences in the perception between the player and the coach, identifying a lesser lack of experience and maturity on the part of the players to perform a self-analysis and criticism of their competencies.
Key Words: Sports talent, performance, dimensions, tactical, technical.

Introduction

Soccer has become a cultural phenomenon, being the most watched sport practice and with the highest priority among young people (Codina et al., 2015; Llames, 1999). That is why it is considered the most influential sport in Spain (Llopis-Goig, 2013) and in the rest of the world (Malina, 2005). Soccer is considered a game of strategy and intelligence and this fact makes it an interesting object of study, not only from a sporting point of view, but also encompassing a multidisciplinary approach, the latter being a characteristic of the sciences of physical activity and sport (Devís et al., 2010).

In sports clubs and associations specializing in soccer, the demand is increasing daily to recruit the greatest number of players who demonstrate excellent skills and a high level of professional performance (González Víllora et al., 2011). Thus, the identification of sports performance and talent emerges as a key principle of player training (Krogh, 2009; Pazo-Haro et al., 2012). In soccer clubs, the identification of talent makes it possible to predict whether an athlete can be an influential figure for the team on the pitch and so the objective is to identify the most outstanding skills and abilities and those that need to be improved (Krogh, 2009), which is why the detection of sports talent and performance of players is very relevant (González-Víllora et al., 2011).

Prior research exploring sporting talent (Lago, 2008; Miñano, 2015; Prado et al., 2012) established several competencies of importance for the evaluation of performance and talent selection. These competencies were grouped into dimensions or factors, such as physical and psychological, and those directly related to soccer, such as technical and tactical factors. Together, these investigations show that through the multifactorial exploration of physical, psychological, technical, and tactical factors it is possible to analyze and evaluate more accurately the level of competence and sporting performance of a player (Karpa et al., 2021).

In soccer, the physical dimension has generally been studied with an anthropometric approach (Malina et al., 2000). However, the study by Reilly et al. (2000) highlighted that in the physical domain aspects such as strength, speed and coordination are more important to evaluate. The authors also pointed out that technical and tactical skills are of higher relevance than anthropometric aspects (Reilly et al., 2000). Similarly, further investigations have indicated that the technical and tactical aspects have a determining relationship with the rest of the dimensions, since, by analyzing variables such as the number of passes, clearances, shooting, transitions,

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interpretation of game situations, among others, they allow the evaluation of their physical and psychological skills (Carmichael et al., 2001; Casamichana-Gómez & Castellano, 2009; Mendo & Morales, 2010; Prado et al., 2012). Additionally, for the evaluation of talented athletes, the psychological dimension is fundamental, since mental strength can contribute significantly to the performance of players, as well as tactical and technical skills (Santos et al., 2010; Popovych et al., 2021). Emotions can also determine the outcome of a match (Lago, 2008; Tapia-Flores & Hernández-Mendo, 2011). That said, players must develop psychological skills inherent to their technical and tactical skills, such as attention control, concentration, short-term goal setting, among others (Abad et al., 2013; Popovych et al., 2021).

In academy teams, objective data obtained in physical and technical tests or subjective data from coaches are generally used for rating the players, the latter having greater weight in decision-making during evaluations (Barreto et al., 2020; Haro et al., 2007; Karpa et al., 2021; Prieto, 2018). Intuition, together with coaches' perception, developed through player observation, is the most used, and most important, form of evaluation in the sport performance and selection of talented young players in youth soccer (Barreto et al., 2020; Cano, 2001; Haro et al., 2007). Abad et al. (2013) point out that the perspective offered by coaches is fundamental during competition assessments and during player training, being, therefore, a commonly used element in soccer.

However, authors such as Reilly et al. (2000), as well as Monteleone and Ortega (2015), point out that in soccer there is a vast amount of information regarding the evaluation of players, since these athletes, in the face of various situations, must constantly analyze and make decisions. This highlights that one of the most outstanding characteristics of this sport is its unpredictability, which makes it increasingly difficult to select the correct instruments for this purpose (Monteleone & Ortega, 2015; Reilly et al., 2000). Because of this, generally speaking, each country and national team have established its own selection criteria, which for the most part are not systematically developed (Barreto et al., 2020; Haro et al., 2007; Llames 1999; Prieto, 2018). Similarly, most of the research that has used instruments for the evaluation of physical, psychological, technical, and tactical dimensions have been created in an analytical way and lack the scientific method, without considering the real aspects of the sport and aspects such as the player's self-evaluation and the coach's perspective (Karpa et al., 2021; Prieto, 2018).

Giving consideration to these studies, the physical characteristics typical of the age of these players should also be taken into account, where the most remarkable thing is that, in terms of maturational development, these players tend to show a higher degree of judgment, reasonableness and mental and psychological maturity, also presenting high capacity for sports competition (Malina et al., 2007). Prieto (2017) states that youth players can show a higher degree of maturity in the assimilation of many sporting aspects, wherein the skills to self-analyze are developed (or, in most cases, are in a higher process of development). Similarly, Cunha et al. (2010) and Laguna and Torrescusa (2000) point out that as their experience in soccer increases, players learn to adequately perceive each factor, increase their judgment capabilities, and recognize their limits as a player, therefore, youth players may have a greater ability to self-analyze.

In the rest of the abilities such as speed and strength, authors such as Cunha et al. (2010) point out that youth players have better performances in the tests of these abilities due to a higher degree of experience and practice. Rampinini et al. (2009) point out that youth players have better performances in specific tasks involving precision passing and repeated ball touches in high-intensity training.

In the research conducted by Lázaro et al. (2019) a valid evaluation instrument was designed with reliable results by means of a series of systematic questionnaires, which allow for the determination of the level of competence and sports performance in players of U12-U13, U14-U16 and U17-U19 youth categories based on the perception of both coaches and players (self-evaluation) on the physical, psychological, technical, and tactical dimensions. This soccer player competency model (MCJF) also makes it possible to identify strengths and weaknesses in the players, to identify the key success factors for the player, and to adapt the players' competencies to the team's game model.

A unique feature of this form of assessment is that perceptions can affect players' sporting performance. That said, evaluations of this variety can trigger two effects. One of them is the Pygmalion effect, where a higher expectation is expected from coaches towards the most skilled athletes. This can positively impact the performance of these athletes as they are expected to receive more attention and instruction (Castillo, 2014; Hancock et al., 2013). Secondly, in the self-evaluation of players, the Galatea effect is of importance. This effect points out that the expectations placed on some players provide those athletes with a better perception of themselves, increasing their perception in terms of performance, self-efficiency, and performance (Hancock et al., 2013).

These effects infer that soccer players can clearly perceive their sporting competencies, as well as those which will be affected by the coach's perception. This fact occurs widely in this sport. Consequently, it is desired to encourage the use of this type of tool, as it provides commensurate and accurate information, based on perceptions. Therefore, the objective of this research was to evaluate, by means of the MCJF, the perception that the youth soccer player and the coach have about the valuation of the competencies regarding the psychological,

tactical, technical, and physical dimensions according to the position that the player occupies on the pitch to determine the talent and sports performance of the players.

The hypotheses proposed to respond to the objective of the study are:

- H1: There are differences in the valuation between the perceptions of the youth player of teams 'B' and 'C' in the dimensions (psychological, tactical, technical, and physical).
- H2: There are differences in the valuation between the perceptions of the youth player and the coach in the dimensions (psychological, tactical, technical, and physical) evaluated, being higher the valuations of the players with respect to those of the coach.
- H3: There are differences in the perceptions of the youth player and the coach on the assessment of the psychological, tactical, technical, and physical dimensions of the player with respect to the position occupied on the field of play.

Materials and methods
Participants

The participants of the study were 80 players between 17 and 18 years of age, playing in one of either two teams in the academy of Sevilla F.C. This football club is considered one of the best development centers for talented young soccer players in Europe. The teams of interest for this study were the 2 most important teams of the U17-U19 'juvenil' youth categories: U19-U18 Juvenil 'B' and U17 Juvenil 'C'.

Study Design and Instrument

To carry out the study objective, a descriptive and quantitative methodology was employed through the implementation of the MCJF, designed and validated by Lazaro et al. (2019). Before the evaluation instrument was used, sociodemographic datasets were collected, such as age, team, and playing position which had been organized into seven positions: center forward, central defender, attacking midfielder, fullback, defensive midfielder, organizing midfielder, and winger.

The structure of the MCJF is made up of 37 variables, which are grouped into four dimensions: psychosocial, tactical, technical, and physical. Each variable has six response options labelled "competency levels" (Table 1).

Each response level describes a specific situation in the development of the competency to be evaluated, where 0 indicates an absolute lack of the competency and 5 indicates excellence in the competency being evaluated. The unit of measurement is given by scores, ranging from 0 to 100 points, as shown in Table 1. The 37 items by means of perception allow for both the player's self-evaluation and the evaluation by the coach (Lazaro et al., 2019).

Table 1. Description of the competency levels and valuation range of the player's perception and the valuation made by the coach in each criterion.

Rating Range (scores)	Competence Level
0-10	Level 0: Competencies not acquired
15-30	Level 1: Competencies in the process of initiation
35-50	Level 2: Competencies in the process of acquisition
55-70	Level 3: Competencies in the process of improvement
75-90	Level 4: Competencies in the process of approaching excellence
95-100	Level 5: Competencies fully achieved

Procedure

Each coach of the 'B' and 'C' teams of the academy was contacted by e-mail, where they were informed of the purpose of the study. Likewise, they were told of the research objective and hypothesis, and were each shown the MCJF model. Subsequently, a meeting was held for the formation and training of the technical staff. For this purpose, the structure of the competency model was explained to them, as well as how to use it, how to answer each item and the definition of the scale. The deadline for which coaches were to complete the evaluation of each of their players and subsequently return their completed questionnaires was one week.

At the same time, the staff responsible for the club defined the competency profiles for each playing position identified and studied according to the playing model defined by the club. It should be noted that each team previously informed its players about the study and informed consent was requested from the legal guardians of minors. During the study, the ethical principle of the Helsinki declaration was taken into

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consideration, and the study was approved by the university ethics committee (World Medical Association, 2013).

A meeting was coordinated with the coaches for the application of the evaluation instrument in each of the players of the teams. They were given the questionnaire on paper, and the objective, content, and instructions for completing it were explained to them. The players were informed that the questionnaire should be answered as clearly as possible and with the highest possible detail, since the value and usefulness of the study was conditioned by the veracity of their answers. Subsequently, the rest of the questionnaire was completed at home, and they were given a period of one week to return it.

The study was conducted during the months of June, July and August 2018.

Data analysis

The data analysis consisted of a descriptive study for the physical, psychological, technical, and tactical dimensions, determining the mean and standard deviation based on the self-perception of the players and the perception of the coaches. In each dimension, the overall scores were analyzed, individually the opinions of each team ('B' and 'C') and the playing positions (center forward, central defender, attacking midfielder, fullback, defensive midfielder, organizing midfielder, and winger).

To study the influence of a player's position on the different dimensions that make up the competency model, ANOVA statistical analysis was performed. The responses of the players' self-perceptions and coaches' perceptions regarding the dimensions were analyzed. This analysis allows for a response to hypothesis H3 stated above to be formed. Similarly, an ANOVA analysis was performed to determine the influence of a player's position on the field on the differences observed between the soccer player's perception of the assessment of his psychological, tactical, technical, and physical competencies and the coach's perception of these competencies.

The SPSS V.21 statistical program was used for data analysis. Statistical tests were performed with a confidence level of 95% (corresponding to a significance level of p=.05).

Results

As mentioned above, the objective of this study was to implement the MCJF to determine the competency level of the players and to analyze the self-perception of the youth player and the coach's perception of the evaluations of the competency dimensions as a function of the position occupied by the player.

Descriptive analysis of the evaluations of the youth players and coaches with respect to the dimensions

Table 2 shows the mean values of the youth players' self-perception and the coaches' assessment of each dimension that is part of the competency model. The standard deviation is analyzed as a measure of dispersion, indicating the dispersion of the variables with respect to the mean value. Low values of this measure indicate that most of the ratings in perception tended to be clustered nearer to the mean value obtained. Moreover, a high standard deviation is indicative that the ratings in perception are far from the mean, extending over a wider range.

The mean value between the tactical, technical, physical, and psychological dimensions of players' self-perception was 71.06 points from players in 'C' and 71.53 points in players from 'B' (Table 2). Between both categories the final mean scores showed no difference between the values, therefore, both teams showed similar sporting characteristics.

Comparing each dimension with respect to the players' self-evaluation, they were found to be, on average, at level 3 of competence, approaching level 4 (75 points) (Table 1). This score shows that the youth players are in a process of improvement. Both teams coincide in having a high level in the tactical and physical dimensions, with values above 72 points, being considered in these dimensions of level 3 close to level 4, that is, that the competencies encompassed within these criteria are in the process of improvement, which could suggest that these youth players have good technique, are fast, disciplined, and resistant, with a good physical performance.

Conversely, the lowest scores present in the two teams were observed in the psychological dimension, with 67.07 points in the 'C' team players and 68.37 in the 'B' team players (Table 2).

In relation to the coach's evaluation of the youth player, the mean value between the dimensions was 68.51 points in Juvenil 'C' and 68.57 points in Juvenil 'B' (Table 2), i.e., between both categories, the final mean scores showed no difference between the values and both teams have similar levels of competence, where no team was worse than the other. Similarly, as in the case of the players, the coach categorized them in level 3 of competence, since the values are in the range 55-70 (Table 1). The dimension that stood out with respect to the others was the tactical dimension with 72.21 points in the 'C' players and 71.82 points in the 'B' players. However, it should be noted that the evaluations made by the players were higher than those made by the coaches.

When a comparison is made between the 'C' team and the 'B' team, with respect to the self-perception of the youth players, a similar tendency is observed in all the dimensions evaluated. The tactical (68.82) and physical (69.46) dimensions are where the greatest difference is observed between the teams. Similarly, in the coaches' perceptions of the youth players, the greatest differences between the teams were observed in the technical and psychological dimensions (Table 2).

Table 2. *Evaluation of the youth players and their coach's evaluation in each dimension according to the team.*

	Category	Psychological Mean± SD	Tactical Mean± SD	Technical Mean± SD	Physical Mean± SD	Physical Dimension Average and Competence Level
Youth Player	Juvenil C	67.07±6.26	74.14±6.36	68.92±3.59	74.20±2.2	71.06 (Level 3)
	Juvenil B	68.37±5.50	73.98±5.07	68.48±4.90	75.3±4.18	71.53 (Level 3)
Coach	Juvenil C	64.85±6.56	72.21±6.74	67.29±3.45	69.69±2.5	68.51 (Level 3)
	Juvenil B	64.91±5.61	71.82±5.47	66.10±4.95	71.47±3.9	68.57 (Level 3)

Table 3 below shows the results obtained in terms of the difference between the coach's evaluation and the player's self-perception of each of the dimensions according to the team to which the player belongs. In other words, Table 3 shows the mean values corresponding to the difference between the coach's evaluation and the player's evaluation.

In general, the greatest discrepancies in the coach/player perception were observed in the psychological dimensions in team 'B' with a value of 3.45 points of difference between the coach and players and in the physical dimension in team 'C', with 4.51 points of difference (Table 3). On the other hand, a greater score concordance was observed in the technical and tactical dimensions since the difference in the ratings was less than 2 points in both dimensions. These results suggest that, in the dimensions most inherent to sports performance, the perception of players and coaches is very similar (Table 3). These results indicate a good communication between both parties where what is taught is learned. These results reinforce what was obtained in Table 2, since the existence of differences between the players' perceptions with respect to that of the coach is observed, with the players' perceptions being greater when positive values of difference are obtained.

Table 3. *Differences in player's perception and coach's assessment according to the player's team*

	Category	Psychological Mean±SD	Tactical Mean±SD	Technical Mean±SD	Physical Mean±SD
Difference in player-coach perception	Juvenil C	2.21±1.56	1.93±1.36	1.63±1.15	4.51±3.19
	Juvenil B	3.45±2.44	2.16±1.52	2.38±1.68	1.82±1.29

Descriptive analysis of the evaluations of the youth players and coaches with respect to the playing position.

Table 4 has the mean values of the player's self-perception and the coach's valuation in each dimension as a function of the youth players' playing position on the pitch.

In all dimensions, both players and coaches rated with scores positioned at level 3 of competence, with the exception of the rating made by the coaches to the center forwards (52.58 points) and wingers (49.98 points), in the technical dimension. These players obtained a score positioned at level 2 with respect to this dimension, reflecting that the players are still in a process of improvement and have not yet fully mastered ball control, ball recovery and marking the opponent (Table 4).

With respect to the evaluations made by the players, the organizing midfielders presented the highest average evaluation (69.99 points) amongst the players, while the wingers were evaluated with the lowest average score, with 64.17 points (Table 4).

Likewise, the coaches perceive the organising midfielders as the players with the best scores in comparison to the rest of the players. The wingers and fullbacks presented the lowest average ratings with 59.47 and 54.15 points respectively (Table 4). When analyzing the coaches and players, the same tendencies are observed, however, the players scored higher compared to the coaches' evaluations.

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Table 4. Self-perception of the youth player and coach's evaluation in each dimension according to the player's playing position

	Youth Player Position	Psychological Mean±SD	Tactical Mean±SD	Technical Mean±SD	Physical Mean±SD	Physical Dimension Average and Competence Level
Youth Player	Central defender	68.3 ±1.4	65.6 ±7	65.4 ±4.5	66.6± 4.6	66.48
	Centre forward	69.35±5.93	68.37±4.63	62.97±3.39	70.78±6.51	67.87
	Fullback	64.21±4.17	65.15±6.87	61.60±4.49	71.48±4.92	65.61
	Winger	63.30±3.11	60.06±5.35	58.25±5.27	69.16±5.41	64.17
	Attacking midfielder	69.32±6.34	74.10±4.24	68.61±4.48	67.87±7.03	69.98
	Defensive midfielder	67.10±4.20	70.465±5.14	68.62±4.62	66.08±5.08	68.07
	Organising midfielder	67.2±4.76	74.85±7.04	69.91±3.35	67.98±6.12	69.99
Coach	Central defender	60.86 ±2.47	59.62 ±10.87	59.69 ±7.77	60.45 ± 7. 64	60.16
	Centre forward	63.20 ±7.98	62.57 ±7.50	52.58 ±8.44	64.49 ±8.41	60.71
	Fullback	59.58 ±4.8	58.43 ±10.22	55.30 ±8.09	64.58 ±7.55	59.47
	Winger	50.00±5.52	53.33±8.9	49.98±6.8	63.28±8.72	54.15
	Attacking midfielder	63.88±7.05	67.56±7.56	61.5±7.53	61.36±8.59	63.58
	Defensive midfielder	58.92±6.1	64.01±9.01	63.26±8.29	59.46±7.82	61.41
	Organising midfielder	58.86±3.48	68.57±11.06	63.91±6.41	61.0±8.36	63.09

Analysis of the comparative perceptions with respect to the position of the player occupied on the playing field and with respect to the dimensions of competence.

For the analysis of the influence that the position that a player occupies on the pitch can have on the evaluations of the dimensions that make up the competence model, an variance analysis was carried out, having playing positions (center forward, central defender, attacking midfielder, fullback, defensive midfielder, organizing midfielder, and winger) as independent factors or variables and as dependent variables were the evaluations of the player and the coach in the 4 dimensions. Table 5 describes the results obtained from the analysis.

In the self-perception of the players, considering the positions that the players may have on the field, p-values lower than the .05 significance level were obtained in the tactical and technical dimensions; therefore, for these categories the null hypothesis of equality of means is rejected (Table 5). These results infer that the perception that a soccer player has about the valuation of his tactical and technical competencies depends on the position he occupies on the field of play, which shows the acceptance of the hypothesis of the present research.

With respect to the coach's perception, p-values of less than .05 were equally obtained in the tactical and technical dimensions, which encompass the competencies that have the greatest relationship with respect to the positions that the players may occupy. The psychological and physical criteria did not show significant p-values.

In both samples analyzed (players and coaches) the psychological and physical dimensions did not show significant p-values (p>.05), and so for these categories, the null hypothesis of equality of means is not rejected and the perception that a soccer player and coach have about the valuation of their psychological and physical competencies does not depend on the position that the player occupies (Table 5).

Table 5. ANOVA analysis of variance of players' and coaches' perception according to the dimensions assessed to evaluate the dependence on playing position.

	Sum of squares	Quadratic mean	F Value	P Sig.
Psychological	467.18	93.44	2.22	0.06
Tactical	2435.62	487.12	11.7	0.00*

		Sum of squares	Quadratic mean	F Value	P Sig
Perceptions Player*positions	Technical	1746.69	349.34	15.55	0.00*
	Physical	405.18	81.04	1.94	0.09
	Psychological	318.5	63.7	1.28	0.28
	Tactical	2553.64	510.73	5.79	0.00*
Perceptions Coach*positions	Technical	1778.92	355.78	6.39	0.00*
	Physical	398	79.6	1.13	0.35

Similarly, an ANOVA analysis was performed to analyze the influence that the position a player occupies on the pitch has on the differences observed between the soccer player's perception of the assessment of his psychological, tactical, technical, and physical competencies and the coach's perception of these competencies (Table 6).

Table 6 highlights that a significant difference was found in the psychological dimension by obtaining a value of less than p .05. The differences in perception observed in the psychological domain depend on the position, rejecting the null hypothesis of the analysis. In the other dimensions, no significant difference was found in the difference in perception between players and coach.

Although in the technical and tactical dimensions variations were observed between the mean values with respect to the positions (Table 5), the difference between the soccer player's perception of the valuation of these dimensions and the perception of his coach on these competencies does not depend on the position he occupies (Table 6).

Table VI. *ANOVA analysis of variance of the difference in players' and coaches' perception according to playing position and with respect to the competency dimensions.*

		Sum of squares	Quadratic mean	F Value	P Sig
Difference in coach-player perception	Psychological	212.31	42.46	3.1	0.01*
	Tactical	18.01	3.6	0.25	0.94
	Technical	48.06	9.61	0.67	0.65
	Physical	13.45	2.69	0.2	0.96

Discussion

The results obtained provide an answer to the objective and hypotheses set out by the study regarding the analysis of the competency assessment with the MCJF model in the youth players of Sevilla FC. The most relevant is to show that there are differences in scores between the perceptions of the player and the coach in the dimensions evaluated, since, in all dimensions, the coach made lower evaluations compared to those made by his players. In addition, it should be noted that the perception of the player and the coach per the evaluation of the tactical and technical competencies of the youth player depends on the position he occupies on the field of play.

During the study, it was observed that this evaluation instrument provided information about the physical, tactical, and technical performance of the player, as well as information about the ability of the youth player to resolve various situations that may be present in training and in a soccer match. Furthermore, through the MCJF tool it was observed that the behavior of the youth player is driven by a series of processes, which may be focused on the player's own activity and, in turn, on his integration with the other players within the team. By means of multifactorial exploration, the level of competence and sports performance of the players can be analyzed and studied with greater accuracy.

The hypothesis H1 "There are differences in the valuation between the perceptions of the youth player of teams 'B' and 'C' in the dimensions (psychological, tactical, technical, and physical)" is not confirmed since, between both categories, the final mean scores showed no difference between the values. The perceptions of the players of team 'B' were similar to the perceptions of the players of team 'C', therefore, both teams showed similar sporting characteristics in each of the competencies. These results are reflected in Table 2.

Both teams were categorized in level 3, with the values being close to level 4. Players in both team 'B' and team 'C' have good technique and tactics, with good physical performance. This could infer that the youth players are adapted to the game model of Sevilla FC. Haro et al. (2007) point out that U17 – U19 ('Juvenil') players have more experience in soccer compared to younger players and that their sporting and critical skills are greater, i.e., they are more developed (Haro et al., 2007). These players are already at a stage where they are able to examine their own skills. Players of both teams 'B' and 'C', having greater experience in the practice of each

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of their competencies and greater maturity at the psychological level, have a criterion focused on reality, which infers that the assessments between both teams can be similar, as there is a non-significant difference between the assessments in perception.

Regarding the second hypothesis H2 of the study "There are differences in the evaluation between the perceptions of the youth player and the coach in the dimensions (psychological, tactical, technical, and physical) evaluated, being higher the valuations of the players with respect to those of the coach", this is accepted when analyzing the results of Tables 2 and 3, since in each of the dimensions the coach evaluated with lower scores compared to the evaluation of the players. The latter generally showed a more positive evaluation. The perception made by the coach indicates the desired requirements for each player. The coach considers that each player should have the highest levels of soccer skills and he uses this as a core concept when conducting evaluations, therefore, this methodology of the competency model allows a closer approach to the situation required by the trainer. Coaches, by means of this instrument, evaluate players based on their observations of how they expect the player to be in each position and category, and as the coach's evaluations were harsher at the same time, this provides a good idea of how they rate their own players. This allows them to help athletes improve their level of competition and athletic performance. However, despite these differences, the ratings of players in both team 'B' and team 'C', were obtained as such so that players as well as their coaches agreed that they are at a level of competence that is in the process of improving.

The differences in perceptions may be due to the degree of maturity of the players and may also be influenced by the player's experience in the discipline. Similarly, authors such as Cunhan et al. (2010) highlight that the difference in professional experience and sports training between coaches and players can lead to very different opinions on the aspects evaluated in sports instruments.

Considering these statements, the results reflected in this study could indicate that the youth players have not yet perfected the techniques and tactics of the game, as they are in a learning stage. Anguera (2003) emphasizes that in the sports field the most important factor is the ability to gain knowledge, which is developed as the athlete trains because the player, with the help of the coach, undertakes a structured approach to training that allows them to develop their soccer skills (Anguera, 2003).

The tactical and technical skills of a player are learned and improved when the player is put in situations where problem solving is necessary. This is pointed out in studies by Moreno (1990), Miñano (2015) Popovych et al. (2021) and Williams & Hodges (2005). The MCJF evaluation instrument is based on these statements, where a series of situations are evaluated that place players in different competence levels, which depend on how the player performs in them (Lázaro et al., 2019). Lago (2008), Karpa et al. (2021) and Vaeyens et al. (2009) point out that the differences observed in the results of soccer matches and trainings may be due to differences in ball possession techniques, tactical approach in the game and defense. These skills can establish important differences between teams.

Researchers such as Cunhan et al. (2010) and Laguna & Torrescusa (2000) have indicated that as experience in soccer increases, players learn to perceive more adequately each competence that involves soccer, and their judgment capabilities increase, recognizing their limits as a player. Therefore, U-17 to U-19 ('Juvenil') players, who are the oldest players in the club youth system, may have a greater capacity for self-analysis, offering an impression focused on reality; however, the sports training of these players is still in the process of development, so the difference in professional experience, sports training and mentality among the players may give rise to very different opinions and capacities for self-analysis and self-criticism on the aspects evaluated in the instrument.

In addition to the above, the results reflected can be related to stress, since the physiological demands represented by the intensities at which activities are performed during a match and the demands involved in working in a high-performance environment at such a young age can generate high levels of stress (Fernandes et al., 2019; Vázquez et al., 2011). The latter is also driven by a greater demand from the soccer club to get a greater number of players with high sporting levels. This can greatly impact the competence level of the players.

Vásquez et al. (2011) designed their own indicators for the evaluation of the competitive ability of elite soccer teams. The authors pointed out that success in soccer matches can influence the subsequent performance of players, since the winning teams presented a higher capacity in the degree of production of technical-tactical actions during offensive and defensive plays. These facts can influence to a certain extent the players' skill and therefore diminish their sporting competencies. As their experience in soccer increases, the players can better handle the concept of losing a game due to the fact that they have likely experienced such a result previously, and this event can have little influence on their technical and tactical skills.

Although the present study is based on the opinion or perception that the coach has on the valuation of the competencies of a U17 - U19 ('Juvenil') soccer player and differences were observed between these perceptions, it can be argued that the results found are confirmed since the coaches perceived the same tendency in their players.

As for hypothesis H3 "There are differences in the perceptions of the youth player and the coach on the assessment of the psychological, tactical, technical, and physical dimensions of the youth player with respect to the position occupied on the field of play" this could be confirmed in two dimensions, as was observed in Tables

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4 and 5, since it was observed that the technical and tactical dimensions do depend on the position occupied by the player. These findings show that the differences observed between players in these dimensions are the result of the effect of the position variable and not of chance. These dimensions are the ones that have the greatest relationship with soccer and the technical and tactical skills are influenced by each position that a player can occupy on the field. It can be noted that dimensions such as psychological and physical are specific to each player, which can vary greatly between players without being directly related to the position he occupies.

Prieto (2017) conducted a study where an instrument was used to evaluate the performance and training of soccer players in the U10 categories of a professional team in Spain. This author used observational methodology with the purpose of evaluating the technical and tactical performance of the players. A fairly high technical and tactical performance was found in U17 - U19 ('Juvenil') category players, where the evolution of tactical skills progressed from goalkeepers to offensive players, who presented greater skills in the evaluated competitions. Terry (2008) concluded similar results regarding the evolution of sports skills in soccer players from 10 to 11 years of age.

The results shown by these authors coincide with those obtained in the present study, since, as mentioned above, it was observed that attacking players such as the attacking midfielders, center forwards and wingers showed the highest values in level of competence and sports performance in the tactical and technical criteria. The level of competence decreased from the attacking players to the defensive players. In addition to the research conducted by Prieto (2017) and Terry (2008) no similar studies have been found that determine the competence level and performance in players of youth categories. This points out that for future research this study is a useful contribution.

Although variations were observed in the technical and tactical dimensions between the mean values with respect to the positions, the difference between the player's perception of the valuation of these dimensions and his coach's perception of these competencies did not depend on the position he occupies; this was observed in Table 6. That said, these competency dimensions may depend to a greater extent on variables not studied in this research and which should be analyzed in subsequent studies, such as environmental and field conditions, or the player's level of fatigue and stress. Similarly, these two dimensions could be conditioned by psychological factors, such as the state of relationships with family, friends and between players, which can subsequently affect the mood and self-esteem of the players (Vasquez, 2012).

An important limitation in this research was the subjectivity of the instrument itself, since there is a possibility that the players were reluctantly completing the questionnaire, and despite their voluntary participation, may have answered the questions or perceptions being evaluated without true self-analysis and criticism, and as such, findings may not coincide with those actually perceived by the youth players.

It should be noted that since the tactical and technical areas were evaluated separately, this could present a limitation. It is necessary to perform this evaluation from the tactical-technical perspective as a whole, since authors such as Lago (2008) Malina et al. (2007) and Popovych et al. (2021) emphasize that the differences that can be perceived in the results of a soccer match and between teams are due, for the most part, to the combined tactical-technical skills. This information can be closer to the reality of the player and of a match, allowing for a better evaluation. It should be noted that this study indicates that the evaluations obtained, both in players and coaches, are far from biased judgments, however, it is necessary to conduct research with a larger sample that allows for the extrapolation of the results and expressing conclusions that can be generalized to other teams.

In conclusion, through the application of this instrument it is possible to obtain information that goes beyond the physical, tactical, or technical development of the player, since it points in a concise manner to the player's ability to solve the situations that arise during training and matches. This will contribute to the knowledge of the coaches and players about the team and will also allow decisions to be made about changes or improvements to the team.

Conclusions

The analysis carried out shows that the MCJF model provided relevant information on the psychological, physical, tactical, and technical development of the player, the main dimensions analyzed in soccer players, as well as information on the player's response capacity in various game situations that may be present in training sessions and soccer matches. Likewise, it is highlighted that the incorporation of the competency model in the coach's evaluations helps the coach to better understand the needs and problems faced by his players.

The study shows that the evaluations of the competencies of the psychological, tactical, technical, and physical areas of the youth players differ from that perceived by the coaches; the latter showed a higher perception in all the criteria evaluated in comparison to the coaches. It can be inferred that the differences observed in perception may be the result of the presence of a lower degree of experience and maturity on the part of the youth players. Despite the above, both players and coaches coincided in the evaluation of the level of competence for both categories, being placed at level 3.

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The results obtained with respect to the dependence of the position occupied by the player were positive, since the perception that the coach and player have about the valuation of tactical and technical competencies does depend on the position. Soccer is mediated by multiple factors outside the player; therefore, the coach could make his evaluations within the psychological and physical sphere without considering the player's position. Future studies are needed to evaluate other variables that may be exerting an effect on the perceptions of the psychological and physical dimensions, such as field conditions, level of player fatigue, stress, possible personal problems, among others.

In addition, it was found that the difference between the perception that a youth soccer player has about the assessment of his tactical, technical, and physical skills and the perception that his coach has about these skills does not depend on the position he occupies. The differences observed between perceptions are not influenced by position.

The MCJF instrument made it possible to determine the level of competence and sporting performance of youth soccer players; therefore, this study provides an appropriate and effective evaluation tool for use by coaches. Likewise, the application of the competency model of the youth soccer player and its knowledge allows a closer approach to the situation required by the coach in each of the dimensions and can help athletes to improve their level of competence and sporting performance.

To conclude, this research highlights the importance of using validated tools for the evaluation and analysis of sports performance, as well as its adequacy to the game model used in the team. This MCJF tool is confirmed as an effective instrument that will allow the coach to offer the player a training adjusted to his needs and in turn will provide the youth soccer player with knowledge about the areas to be improved. This study provides guidance from these first latent evidence and at the same time, warns of the need for further research.

References:

Abad, M.T., Giménez, F.J., Robles, J., & Castillo, E. (2013). La formación de los entrenadores de jóvenes futbolistas. *E-balonmano.com: Revista de Ciencias del Deporte*, *9*(2), 105-114. https://core.ac.uk/download/pdf/304881314.pdf

Anguera, M.T. (2003). *Metodología básica de observación en fútbol. Metodología de la enseñanza del fútbol.* Editorial Paidotribo.

Asociación Médica Mundial. Declaración de Helsinki-Principios éticos para las investigaciones médicas en seres humanos. 64ª Asamblea General; Fortaleza, Brasil, octubre 2013. http://www.isciii.es/ISCIII/es/contenidos/fd-investigacion/fd-evaluacion/fd-evaluacion-etica-investigacion/Declaracion-Helsinki-2013-Esp.pdf

Barreto, A., Abad, M., & Giménez, F. (2020). Design and validation of a questionnaire to study the process of training football players. *Revista de Ciencias del Deporte 16*(2), 127-38.

Cano, O. (2001). *Fútbol: entrenamiento global basado en la interpretación del juego*, Wanceulen Editorial Deportiva.

Casamichana Gómez, D., & Castellano, J. (2009). Análisis de los diferentes espacios individuales de interacción y los efectos en las conductas motrices de los jugadores: aplicaciones al entrenamiento en fútbol. *Motricidad: European Journal of Human Movement, 23*, 143-167. https://www.redalyc.org/pdf/2742/274219863010.pdf

Castillo, R. (2014). *El efecto Pigmaliòn. ¿Hasta qué punto determina nuestro futuro la visión que los demás tienen de nosotros?* (Tesis doctoral). universidad pontificia de las comillas Madrid. Recuperado de https://repositorio.comillas.edu/xmlui/handle/11531/272y.

Carmichael, F., Thomas, D., & Ward, R. (2001). Production and Efficiency in Association Football. *Journal of Sports Economics*, 2(3), 228–243. doi: 10.1177/152700250100200303

Codina, N., Pestana, J.V., Castillo, I., & Balaguer, I. (2015). Ellas a estudiar y bailar, ellos a hacer deporte: Un estudio de las actividades extraescolares de los adolescentes mediante los presupuestos de tiempo. *Cuadernos de Psicología del Deporte, 16*(1), 233-242. https://revistas.um.es/cpd/article/view/254591

Cunhan, G., Mesquita, I., Moreno, M., Boleto, A., Tavares, T., & Silva, P. (2010). Autopercepción de las competencias profesionales de los entrenadores de fútbol en función de la experiencia personal y de la formación académica. *Cuadernos de Psicología del Deporte, 10*(1), 23-36. https://revistas.um.es/cpd/article/view/110261

Devis, J., Valenciano, J., Villamón, M., & Pérez-Samaniego, V. (2010). Disciplinas y temas de estudio en las ciencias de la actividad física y el deporte. *Revista Internacional de Medicina y Ciencias de la Actividad Física y el Deporte*, *10*(37), 150-66. http://cdeporte.rediris.es/revista/revista37/artdisciplinas147.htm

Fernandes, T., Camerino, O., Garganta, J., Pereira, R., & Barreira, D. (2019). Design and validation of an observational instrument for defence in soccer based on the dynamical systems theory. *International Journal of Sports Science & Coaching*, *14*(2), 138-152. doi: 10.1177/1747954119827283.

González-Víllora, S., García-Lopez, L., Pastor-Vicedo, J., & Contreras-Jordán, O. (2011). Tactical knowledge and decision making in young football players (10 years old). *Journal of Sport Psychology*, *20*(1), 79-97.

Hancock, D. J., Adler, A. L., & Cote, J. (2013). A proposed theoretical model to explain relative age effects in sport. *European journal of sport science*, *13*(6), 630-637

Haro, G., Ortega, J., Cerezo, C. y Contreras, M. (2007). Propuesta de valoración técnico-táctica mediante una situación de juego colectivo básico en el fútbol de iniciación. *Nuevas tendencias en Educación Física, Deporte y Recreación, 12*, 29-35.

Jang, D., Ahn, J. & Kwon, S. (2020). Relationships between implicit beliefs and mental toughness: The role of implicit beliefs of adolescent football players and their coaches. *Journal of Physical Education and Sport, 20*(1), 156-63.

Karpa, I., Budzyn, V., Matviyas, O., Ripak, O, Lapychak, I. & Horkavyy, B. (2021). Improving the technical and tactical actions of qualified football players of various positions in certain areas of the field. *Journal of Physical Education and Sport, 21*(3), 1461-68.

Krogh, M. (2009). "An Eye for Talent": Talent Identification and the "Practical Sense" of Top- Levell Soccer Coaches. *Sociology of Sport Journal, 26*, 365-382. doi: 10.1123/ssj.26.3.365

Lago, C. (2008). El análisis del rendimiento en el fútbol. Estado actual y perspectivas de futuro en la investigación. *Fútbol e Innovación, 894103.*

Laguna, M., & Torrescusa, L.C. (2000). La detección y seguimiento de jugadores. *Área de balonmano, cuadernos técnicos, 14*, 13-23

Llames, R. (1999). Selección de Jóvenes Deportistas en Fútbol. *Revista de Psicología del Deporte*, 8(2), 249-257.

Lazaro, C.B, Gallardo, A.M, Jabaloyes, J., & Salazar, J. (2019) Diseño y Validación de un cuestionario para Entrenadores de Fútbol Acerca de las Competencias de Jugadores en Categorías Juvenil, Cadete e Infantil. *Gymnasyum,1,* 1-19. https://g-se.com/diseno-y-validacion-de-un-cuestionario-para-entrenadores-de-futbol-acerca-de-las-competencias-de-jugadores-en-categorias-juvenil-cadete-e-infantil-2586-sa-w5d30ab47dc737

Llopis-Goig, R. (2013). Identificación con clubes y cultura futbolística en España. Una aproximación sociológica. *RICYDE. Revista Internacional de Ciencias del Deporte. 33*(9), 236-251.

Malina, R. M. (2005). *Youth football players: number of participants, growth and maturity status*. In: T.C. Reilly, J. Cabri & D. Araujo (Eds). *Science and Football V*, Routledge.

Malina, R.M., Peña Reyes, M.E., Eisenmann, J.C., Horta, J., Rodrigues, J., & Miller, R. (2000). Height, mass and skeletal maturity of elite Portuguese soccer players aged. *Journal of Sports Sciences, 18*, 685 – 693.

Malina, R. M., Ribeiro, B., Aroso, J., & Cumming, S. P. (2007). Characteristics of youth soccer players aged 13-15 years classified by skill level. *British Journal of Sports Medicine*, *41*(5), 290-295. doi:10.1080/02640410050120069.

Mendo, A., & Morales, V. (2010). Psicología y fútbol profesional: caracterización de un reto pendiente. *Apuntes de Psicología, 28(2*), 237-261. http://www.apuntesdepsicologia.es/index.php/revista/article/view/215/217

Miñano, F. (2015). *Análisis de la actividad física competitiva en jugadores de fútbol de un equipo de excelencia*. Tesis doctoral. Universidad politécnica de Madrid: Madrid.

Moreno, M. (1990). Táctica y estrategia. Principios fundamentales. *El Entrenador Español de Fútbol*. Nº1, 37-43.

Monteleone, M., & Ortega, M. (2015). *La construcción de un modelo de juego*. Editorial Paidotribo.

Pazo-Haro, C.I., Saenz-López Bunuel, P., & Fradua, L. (2012). Influencia del contexto deportivo en la formación de los futbolistas de la selección española de fútbol. *Revista De Psicología Del Deporte, 21*(2), 291-299. https://www.redalyc.org/pdf/2351/235126897009.pdf

Prado, A.S., Reina-Gómez, A., & Hernández-Mendo, A. (2012). Football performance indicators review. *Revista Iberoamericana de Ciencias de La Actividad Física y El Deporte*, *1*(1), 1–14.

Popovych, I., Shcherbak, T., Kuzikova, S., Blynova, O., Nosov, P. & Zinchenko. S. (2021). Operationalization of tactical thinking of football players by main game roles. *Journal of Physical Education and Sport, 21*(5), 2480 – 2491.

Prieto, M. (2018). Detección de Talentos en Futbolistas a Través de Pruebas Físicas y Técnicas y la Opinión de los Entrenadores. *Revista de educación física: renovar la teoría y la práctica*, *150*, 11-17.

Rampinini, E., Sassi, A., Morelli, A., Mazzoni, S., Fanchini, M., & Coutts, A. J. (2009). Repeated-sprint ability in professional and amateur soccer players. *Applied Physiology, Nutrition, and Metabolism, 34(6), 1048–1054.*

Reilly, T., Bangsbo, J., & Franks, A. (2000). Anthropometric and physiological predispositions for elite soccer. *Journal of Sports Sciences*, 18, 669-683. doi: 10.1080/02640410050120050

Santos, S., Mesquita, I., Graça, A., & Rosado, A. (2010). Coaches' perceptions of competence and acknowledgement of training needs related to professional competences *Journal of Sports Science and Medicine, 9*(1), 62-70. Recuperado de https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3737976/

Tapia-Flores, A., & Hernández-Mendo, A. (2011). Una herramienta para estudiar la dirección de equipos en fútbol. *Cuadernos de Psicología del Deporte, 11*(2), 105-113. https://revistas.um.es/cpd/article/view/133891/123261

Terry, C. (2008). *Diseño de una herramienta observacional de evaluación técnico-táctica del fútbol para niños de 10-11 años (Cienfuegos, Cuba).* Tesis doctoral. Universidad de Granada: Granada.

Vaeyens, R. (2007). *Talent identification and selection in youth soccer: Contribution from the perceptual-cognitive domain in a multidisciplinary model.* Tesis doctoral. University of Gent, Belgium.

Vaeyens, R., Güllich, A., Warr, C. R., & Philippaerts, R. (2009). Talent identification and promotion programmes of Olympic athletes. *Journal of Sports Sciences, 27*(13), 1367–1380

Vázquez, Á. V., Gayo, A. A., Pita, H. B., & Fernández, C. A. (2011). Diseño y aplicación de una batería multidimensional de indicadores de rendimiento para evaluar la prestación competitiva en el fútbol de alto nivel. *RICYDE. Revista Internacional de Ciencias Del Deporte, 7*(23), 103–112.

Vázquez, M. (2012). Considerations for Improving Endurance in Football. Apunts. *Educación Física y Deportes, 110,* 35-51.

Williams, A.M., & Hodges, N.J. (2005). Practice, instruction and skill acquisition in soccer: Challenging tradition. *Journal of Sports Sciences*, *23*(6), 637-650. doi: 10.1080/02640410400021328.