

Parents and coaches' opinion on the current and modified competition rules in soccer for the promotion of value

Opinión de padres y entrenadores sobre las reglas de competición actuales y modificadas en el fútbol para la promoción de valores

Javier Madrid-Pedreño^{1*} , Jose Maria Giménez-Egido¹ , Enrique Ortega-Toro¹⁻² 

¹ Universidad de Murcia ² Sport Performance Analysis Association

* Correspondence: eortega@um.es

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Abstract

The current competitive systems in soccer are not, in many cases, the ideal ones to achieve an adequate teaching-learning process because they are inadequate to the characteristics and preferences of the children. The objectives of this work are to design and validate a questionnaire, so that it allows, secondly, to know the opinion of a group of parents and coaches about the degree of satisfaction with the current federative rules, those modified in the internal league of values of FC Cartagena and the benefits they consider from the new rules. For this, a questionnaire was designed and validated, by an expert group (16.3 ± 8.74 years of experience), which was administered to 21 coaches (age = 29.9±8.56 years and 6.90±6.73 years of experience) and 57 parents (age = 40.5±10.5 years) from the under 10 (41,65%) and under 12 (58,35%). The results showed that, despite showing general satisfaction with the current rules, they considered the modified regulation better with more appropriate rules for children to achieve improvements in the teaching-learning process and in the promotion of values. The rules of the internal league of values can be used by clubs and federations to implement a competitive system that allows greater personal development, thus allowing a competitive balance by being structured by levels and an increase in motivation, to achieve greater participation and equal opportunities than the competitive systems proposed by the federation

Keywords: football; modification; rules; values; redesign.

Resumen

Los actuales sistemas competitivos en el fútbol no son, en muchos casos, los idóneos para lograr un adecuado proceso de enseñanza-aprendizaje por ser inadecuados a las características y preferencias de los niños y niñas. Los objetivos de este trabajo son diseñar y validar un cuestionario, para que permita, en segundo lugar, conocer la opinión de un grupo de padres/madres y entrenadores/as sobre el grado de satisfacción con las actuales normas federativas, las modificadas en la liga interna de valores del FC Cartagena y los beneficios que consideran de las nuevas normas. Para ello, se diseñó y validó un cuestionario, por un grupo de expertos (16,3 ± 8,74 años de experiencia), que fue administrado a 21 entrenadores (edad = 29,9±8,56 años y 6,90±6,73 años de experiencia) y 57 padres/madres (edad = 40,5±10,5 años) de jugadores/as de fútbol de las categorías sub 10 (41,65%) y sub 12 (58,35%). Los resultados mostraron que, a pesar de mostrar satisfacción general con el reglamento actual, consideraron mejor el reglamento modificado con reglas más adecuadas para que los niños y niñas consiguieran mejoras en el proceso de enseñanza-aprendizaje y en el fomento de valores. El reglamento de la liga interna de valores puede ser utilizado por clubes y federaciones para implantar un sistema competitivo que permita un mayor desarrollo personal, permitiendo así un equilibrio competitivo al estar estructurado por niveles; y un aumento de la motivación, para conseguir una mayor participación e igualdad de oportunidades que en los sistemas competitivos propuestos por la federación.

Palabras clave: fútbol; modificación; reglas; valores; rediseñando.

Introduction

Sport is an essential tool to guarantee a good quality of life (Díaz, et al., 2019). Multiple medium-long-term benefits of sports practice have been demonstrated, in the field of health (Malm, et al., 2019), cognitive development (Bidzan-Bluma & Lipowska, 2018), school performance (Dyer, et al., 2017) and personal development in children (Bailey, et al., 2010). According to Côte et al. (2007), youth sport must pursue the 3 Ps: Performance, Participation & Personal Development. In the terms of Performance, there are programs that seek long-term objectives to reach elite (Ford, et al. 2009). Similarly, sports practice reduces sedentary lifestyle in young people (Janssen & LeBlanc, 2010). Lastly, there are sports programs that promote personal and social values (Weiss, et al. 2013). In this line, different authors show important implications for the development of values through programs, such as Personal and Social Responsibility Model (Hellion & Walsh, 2002), the School Sports Program (Camiré et al., 2013), United Sport for the Promotion of Education and Leisure (Danish, et al. 2002) or Play it Smart (Petitpas, et al. 2004). Also, educational projects must also be taken into account, finding some examples in different sports such as, basketball, the one developed by the Real Madrid Foundation (Ortega & Jiménez, 2012) with the White Card (Ortega, et al., 2012), Golf, the sport-based life skills and community service program (Brunelle, et al., 2007) or football, Comprehensive program in team sports for values education (Omeñaca, et al., 2015). Hence, youth sport programs should not forget included the values promotion are also an important objective for an adequate personal development (Côte et al., 2007).

However, most of the youth sports programs do not include the values promotion formative process (Côté & Hancock, 2016). Sport programs in a competitive environment induce more stress and anxiety than care the personal development of athletes (Mellalieu, et al., 2009). In addition, competition and its rules are decisive for the training process, as they determine the behaviors and actions that children will develop in the game (Ortega-Toro, et al., 2012). Therefore, it is believed necessary that these rules are adapted to the characteristics (Buszard, et al., 2016; Hernández-Beltrán, et al., 2024), according to the learning stages and the maturational state (Balyi & Hamilton, 2005), and to the preferences of the children. By adopting this approach, we can create a nurturing sports environment that offers equal opportunities, fostering the development of healthy habits and encouraging active participation, enabling all children to thrive inclusively (Orlick & Botterill, 1975).

In this perspective on training process, there is no space for traditional models that forget the perception-action mechanisms (Correia, et al., 2019). In this line there is a methodology called Nonlinear Pedagogy (NLP), grounded on a constraints led-approach that is characterized by establishing a system of constraints on three aspects: on the environment, in which all climatic, environmental, social and spatial factors are taken into account (Chow et al., 2007, 2009); on the task, in terms of the modification of the number of players, playing area, playing surface or goals (Davids et al., 2007); or on the player, degree of physical development or evolutive moment (Hopper, 2002). Accordingly, NLP is based on the need to train actions in a real context. Several studies were developed in order to know how tasks constraints benefit player development in different sports such as basketball (e.g. Arias, et al., 2008; Chase, et al., 1994; Ortega-Toro et al., 2017), tennis (eg. Larson, & Guggenheimer, 2013; Gimenez-Egido, et al., 2020), volleyball (e.g. Giatsis, 2003; Pellett, et al., 1994; Ronglan & Grydeland, 2006), rugby (e.g. Eaves, et al., 2008; Williams, et al., 2005) or football (e.g.; García-Angulo, et al., 2020; Oppici, et al., 2018) finding great results in the physical, technical and in the psychological dimension.

In football, Small sided-games (SSG) is the approach based on NLP in which coaches simulate real game contexts of play by reducing space, number of players or modifying feedback and rules (Martínez-Jiménez, & Ortega-Toro, 2024; Sarmiento, et al., 2018). Several positive effects on technical actions were reported, as SSG increase participation and a lot of passing and attacking actions (García-Angulo, et al., 2020). Furthermore, tactics and team coordination are increased by the use of SSG (Frencken, et al., 2011). In terms of physical demands, SSG can increase intensity in very similar match conditions (Hill-Haas, et al., 2011; Rampinini, et al., 2007). Although there is a strong concern for the theoretical models that defend personal development through sport, no much empirical studies were developed to know the effect of sport

competition programs on the personal development of athletes (Côté, et.al., 2008). There is a need of evidence to know the total benefits considering the technical and tactical, the physical, the psychological and the personal development area.

Some works in the personal development in football through sport programs were developed achieving great results, especially in the acquisition of the values of autonomy and respect (Veroz, et.al., 2015), increase in social cohesion (Lopez-Gajardo, et al., 2024; Nathan, et.al., 2010) or life skills and self-efficacy (Petitpas, et.al. 2004). However, it is observed how all these experiences are developed in very short periods of time, with no medium-long-term planning (Petitpas, et.al., 2005). In the same way, correct coordination between the sports program and the community is necessary, so that common goals are shared for a greater transfer of prosocial values to students in favor of their community (Gordon & Doyle, 2015).

However, lots of attention was pointed on modifying tasks constraints, such as space, number of players or rules while no much studies on environment were designed. Environment is the context in which athlete develops and is composed by all cultural, social and familiar factors. The support of families in the development of the athlete has been widely highlighted (Woods & Butler, 2020), especially because of the emotional support they provide (Wolfenden & Holt, 2005). In addition, family support will be essential for an adequate promotion of values, so that the process of communication and reinforcement of the behaviors between coaches and parents, that children develop in the practice of dep is aligned (Jacobs, et.al., 2017). Within this factor, the influence of the coach deserves special attention. Not only because of his ability to plan training and generate a context of good practice, but also because he is an influential figure in the athlete's personal development (Fraser-Thomas & Côté, 2009; Miller et al., 2002). For these reasons, it is necessary to evaluate the opinion of parents and coaches about modified competitions, since they represent an influencing agent to generate changes that favor new competitive environments that are more favorable for young athletes (McCarthy, et.al., 2016).

In soccer, there are few studies developed on the opinion of the different agents involved in the teaching-learning process in modified competitions. In the work of Aroca & Salado-Tarodo (2019), the opinion of parents and coaches was recorded on the rules of current competitions and a modified competition for under-12 (U-12) category, finding that: a) only 57% of parents are satisfied with the effectiveness of the current rules in the game; b) the group of coaches is not at all satisfied with the number of players (8v8); c) 90% of parents agree that modifying the rules leads to increased player participation. In this way, it can be seen that there are no studies that assess the opinions of the different agents of modified competition to enhance the promotion of values. However, there isn't any specific instrument to measure the opinions of this social agents that could be used for this competition.

In this study, the modified competition entitled: "FútVol con V de Valores", was designed and include as main modifications: a) reduced space and players; b) playing time in sets (5x10 min.); c) each set starts 0-0; d) scoreboard adding points for fair play; e) use of a card to reward notable attitudes; f) minimum playing time per player and additional player in the face of bulky results; g) use of a decalogue of behaviors; h) post-match debate with the two teams; and i) participation in activities of a social nature with associations that score in the league.

The objectives of this work were, at first, to design and validate a specific instrument to measure social agents opinions, and to know the satisfaction of a group of parents and coaches on the current federative rules and the internal league of values rules of FC Cartagena SAD. We expected that once parents and coaches live a modified competition they would have higher satisfaction than with current federative system.

Method

Design

The design carried out in the present work has been of a cross-sectional descriptive nature, specifically, through the use of an ad hoc questionnaire, validated by a group of experts, to know the opinion of parents and coaches on the federation rules and modified rules of the internal league of values of FC Cartagena. The Ethics Committee of the University of Murcia (Spain) validated the study (ID:2829/2020).

Sample

The sample was collected by non-probability sampling through an online questionnaire. The expert group comprised 14 participants (14 men, 2 women), with professional experience in sports psychology ($n = 4$), sports science ($n = 8$) and coaching experience ($n = 2$) of 16.3 ± 8.74 years of experience. The participants surveyed were 21 soccer coaches (age = 29.9 ± 8.56 years and 6.90 ± 6.73 years of experience) and 57 parents (age = 40.5 ± 10.5 years) from the under 10 (U-10: 41,65%) and under 12 (U-12: 58,35%) years of age groups, of which 71.9% were men and 28.1% women. The group of coaches also presented an average of 11.5 ± 6.61 years of experience as a player, 28.6% having the title of monitor, 38.1% level 1 coach, 19% level 2 coach and 14.3% none. The group of parents presented an average of 6.09 ± 6.99 years of experience as a player and only 17.7% of those surveyed had a sports coach qualification. The criteria for selecting sample were accessibility and proximity though intentional sampling due to the specificity of the context.

Instrument

A questionnaire was designed to allow evaluating the opinion of parents and coaches, specifically, their satisfaction. For its design, a literature review was carried out, finding previous experiences in the field of modifying rules and the opinion of different agents in basketball (Cañadas & Ortega-Toro, 2017; Ortega-Toro, 2012) and soccer (Aroca & Salado-Tarodo, 2019). The questionnaire consists of three blocks; 1) sociodemographic variables; 2) opinion on the current federative rules and; 3) opinion of the rules of the internal league of values and only one construct, satisfaction.

We assessed content validity qualitatively, using a Delphi process with a group of international experts during the development of the questionnaire.

Procedure

Before the design of the questionnaire a review of the literature was made, using the following databases: Web of Science (WOS) de ISI Thomson Reuters, Latindex, Sports Discus, Scopus, Google Scholar, Scielo, and Dialnet. The keywords of the search were: "soccer" or "football", "values" and "values questionnaire sport". After the selection of papers with correct questionnaires, the researchers reviewed their characteristics, scales, questions and redaction. In the second stage, a draft of a list of questions was created from related scientific literature and a first redaction of the questionnaire was made. The first design of the questionnaire was revised by a expert panel to asses content validity (Davis, 1992). All items were valued up to 7, so no revision was made (Bulger y Housner, 2007). The definitive questionnaire was written on Google Forms and was sent to 8 parents and 6 coaches to perform a test-retest, in which the understanding validity of the players was analyzed, and the reliability of the questionnaires. The instruments were administered on two occasions (Nevil, et.al., 2001). Both measurements were separated by time, for a week, and were performed under practically identical circumstances (Baumgartner, 2000). The questionnaire was sent to parents and coaches by email and it took around ten minutes to complete it. A modified competition ("FútVol") was designed using rules applied in other works (García-Angulo, et.al., 2020), as well as others with a clear objective towards the promotion of values: a) reduced space and players; b) playing time in sets (5x10 min.); c) each set starts zero to zero; d) scoreboard adding points for fair play; e) use of a card to reward notable attitudes; f) minimum playing time per player and additional player in the face of bulky results; g) use of a decalogue of behaviors; h) post-match debate with the two teams; and i) participation in activities of a social nature with associations that score in the league. The competition was held during the 2019/2020 season, with thirty games played between U-10 and U-12 category teams. After the finish of the competition families and coaches were asked to fill in the questionnaire, once the approval of the Ethics Committee of the University of Murcia was obtained (ID:2829/2020).

Statistical Analysis

Descriptive statistics (median and IQC, mean and CV%) were calculated for each variable. Experts' qualitative and quantitative revision and the use of Aiken's V allowed for measuring the content validity of the questionnaire. To assess internal consistency, we calculated Cronbach's alpha. Exploratory factor analysis was calculated to asses structural

validity. Data normality was checked using the Kolmogorov Smirnov test. Data assumes no normal distribution which led to the use of non-parametric test (Wicoxon signed-rank test). For null hypothesis significance testing (NHST), the alpha level for statistical significance was set at $p < 0.05$ (Field, 2018). In addition, non-clinical magnitude-based inference (MBI) was applied to pairwise comparison with standardized mean differences and their 95% confidence intervals (CI) reported (Batterham & Hopkins, 2006). The effect was unclear as to whether if the CL overlapped positive and negative values simultaneously (Hopkins. et.al. 2009). The chance of finding magnitudes of clear effects were detailed according to the following scale: 25-75%, possibly; 75-95%, likely; 95-99%, very likely; > 99%, most likely (Batterham & Hopkins, 2006). The effect size (ES) in mean comparison was interpreted using the following criteria: < 0.2 = trivial; 0.2-0.6 = small; 0.6-1.2 moderate; 1.2-2.0 = large; 2.0-4.0 = very large; > 4.0 = extremely large (Hopkins. et.al. 2009). Statistical analysis was performed using Jamovi spreadsheet 1.1.8 (2019).

Results

Content Validity

The Delphi methodology was used (Table 1). Experts did a quantitative (scale 0–10) and qualitative evaluation. Experts were asked about: (a) comprehension of the criteria, (b) pertinence of each question and (c) whether to include other questions. The content validity was calculated with the Aikens’s V coefficient (Aiken, 1985). A Visual Basic app was used to calculate it (Merino and Livia, 2009). The confidence intervals were set out in 95% through score method (Penfield and Giacobbi, 2004). All items had average values >0.80, so all of them were accepted (Bulger and Housner, 2007).

Table 1. Item validity content statistics through quantitative Delphi method.

	Accuracy			Wording		
	Mean	% Cv	Aiken's V [95% CI]	Mean	% Cv	Aiken's V [95% CI]
Playing Space	8.77	16.88	0.86 [0.79, 0.92]	9.22	14.11	0.91 [0.85, 0.95]
Number Of Players	9.23	14.09	0.91 [0.85, 0.95]	9.33	17.77	0.93 [0.86, 0.96]
Goal Size	9.77	6.13	0.97 [0.93, 0.99]	9.22	18.61	0.91 [0.85, 0.95]
Ball Size	9.62	9.99	0.96 [0.91, 0.98]	8.67	12.90	0.85 [0.78, 0.91]
Playing Time	9.08	18.25	0.90 [0.83, 0.94]	8.56	19.48	0.84 [0.76, 0.90]
Scorie	9.00	16.36	0.89 [0.82, 0.94]	8.22	19.02	0.80 [0.72, 0.87]
Subtitutions	9.00	20.29	0.89 [0.82, 0.94]	9.11	15.95	0.90 [0.83, 0.94]
Competitive System	9.15	12.49	0.91 [0.84, 0.95]	8.67	17.31	0.85 [0.78, 0.91]
Playing Categories	9.38	11.12	0.93 [0.87, 0.97]	9.22	18.61	0.91 [0.85, 0.95]
White Card	8.69	14.39	0.85 [0.78, 0.91]	9.11	16.87	0.90 [0.83, 0.94]
Reduced Playing Space	9.15	8.75	0.91 [0.84, 0.95]	9.56	5.52	0.95 [0.90, 0.98]
Number Of Players A5	8.62	16.10	0.85 [0.77, 0.90]	9.22	11.85	0.91 [0.85, 0.95]
Number Of Players A8	8.54	18.89	0.84 [0.76, 0.89]	8.89	15.35	0.88 [0.81, 0.93]
Subtitutions Mod	9.31	17.75	0.92 [0.86, 0.96]	9.33	11.98	0.93 [0.86, 0.96]
Playing Time Sets	8.38	18.08	0.82 [0.74, 0.88]	9.44	9.34	0.94 [0.88, 0.97]
Scorie Fair Play	8.88	15.48	0.88 [0.81, 0.93]	9.00	17.57	0.89 [0.82, 0.94]
Additional Player	8.40	18.87	0.82 [0.74, 0.88]	9.22	14.11	0.91 [0.85, 0.95]
Black And White Card	8.96	18.57	0.88 [0.82, 0.93]	9.33	17.77	0.93 [0.86, 0.96]
Decalogue	9.23	18.32	0.91 [0.85, 0.95]	9.11	11.57	0.90 [0.83, 0.94]
Competitive System	9.00	20.79	0.89 [0.82, 0.94]	9.56	9.23	0.95 [0.90, 0.98]
C.S. Sociall Actions	9.08	17.10	0.90 [0.83, 0.94]	9.89	3.37	0.99 [0.95, 1.00]
Debate	9.08	18.79	0.90 [0.83, 0.94]	9.67	10.34	0.96 [0.91, 0.99]

Scale Reliability

To assess internal consistency, we calculated Cronbach's alpha (Table 2). A higher Cronbach alpha statistic suggests greater homogeneity among the questions that comprise the instrument. Also, the composite reliability of the construct and the analysis of the variance extracted were calculated.

Table 2. Item Reliability Statistics.

<i>Rules</i>	<i>Mean</i>	<i>Dsviation Standard</i>	<i>Item-rest correlation</i>	<i>If item dropped Cronbach's α</i>
Playing Space	3.842	0.939	0.638	0.869
Number Of Players	3.868	1.050	0.562	0.871
Goal Size	3.816	1.029	0.487	0.874
Ball Size	4.171	0.719	0.446	0.875
Playing Time	3.868	0.943	0.459	0.875
Scorie	3.474	1.227	0.557	0.872
Subtitutions	4.013	1.172	0.392	0.877
Competitive System	3.711	1.164	0.382	0.878
Playing Categories	3.618	1.095	0.572	0.871
White Card	4.474	0.901	0.491	0.874
Reduced Playing Space	3.789	1.011	0.547	0.872
Number Of Players A5	3.526	1.113	0.392	0.877
Number Of Players A8	4.171	0.870	0.589	0.871
Playing Time Sets	3.605	1.047	0.506	0.873
Scorie Fair Play	4.013	0.959	0.456	0.875
Additional Player	3.697	1.132	0.315	0.880
Black And White Card	4.513	0.702	0.629	0.871
Decalogue	4.539	0.662	0.510	0.874
Competitive System	4.408	0.769	0.453	0.875
C.S. Social Actions	4.539	0.682	0.391	0.877
Debate	4.408	0.734	0.483	0.874
Subtitutions	4.013	0.959	0.263	0.880

Structural Validity

The exploratory factor analysis indicated the existence of only one factor.

Table 3. Component Loadings

<i>Rules</i>	<i>Factor 1</i>	<i>Uniqueness</i>
Playing Space	0.687	0.528
Number Players	0.622	0.613
Goal Size	0.536	0.712
Ball Size	0.500	0.750
Time Play	0.527	0.723
Current Scorie	0.615	0.621
Current Changes	0.450	0.797
Competition System	0.465	0.783
Playing Categorie	0.630	0.603
White Card	0.605	0.634
Mod Space	0.595	0.646
Mod Number Five	0.431	0.814
Mod Number Eight	0.653	0.573
Mod Changes	0.300	0.910
Mod Sets	0.531	0.718
Mod Scorie	0.522	0.727
Mod Additional Player	0.358	0.872
Mod Card	0.713	0.528
Mod Decalogue	0.594	0.613
Mod Competition System	0.536	0.712
Mod Activities Competition	0.481	0.750
Mod Debate	0.565	0.723

Parents and Coaches Satisfaction

Firstly, 68.4% of parents and 55.53% of coaches did not consider the application of rule modifications necessary in U12 and U10 categories. The descriptive analysis of opinions of parents and coaches of the two competition models can be observed in table 4. Median, mode, skewness and IQR are showed to see the differences between current and modified rules. At federation rules a general satisfaction was observed specially on items related to the way of playing like number of players, pitch size, goal size or substitutions. White card, the most specific rules, had a very good puntuation. Competitive system, playing categories and playing time were less valued. At modified rules, a bit higher satisfaction was found, especially at rules related to fair play like competitive system, Black and White Card, decalogue, debate or social actions.

Table 4. Parents and coaches satisfaction with the current federation rules and modified conditions of playing for U-10 and U-12 players

Federation rules	Coaches						Parents					
	U-12			U-10			U-12			U-10		
	Me [IQR)	Mo	Sk	Me [IQR)	Mo	Sk	Me [IQR)	Mo	Sk	Me [IQR)	Mo	Sk
Playing space	4.00 [4.00 – 4.25]	4.00	-0.08	4.00 [3.00-5.00]	5.00	-0.69	4.00 [3.25-4.00-]	4.00	-1.11	4.00 [4.00-4.00]	4.00	-2.89
Number of players	4.50 [3.75-5.00-]	5.00	-1.10	5.00 [3.00-5.00]	5.00	-0.68	4.00 [4.00-4.00]	4.00	-1.45	4.00 [4.00-4.00]	4.00	-2.89
Goal size	5.00 [3.75-5.00-]	5.00	-0.79	4.00 [3.00-5.00]	4.00	-0.94	4.00 [4.00-4.75]	4.00	-0.71	4.00 [3.00-4.00]	4.00	-0.95
Ball size	5.00 [4.75-5.00-]	5.00	-1.32	4.00 [4.00-5.00]	4.00	-0.94	4.00 [4.00-5.00]	4.00	-0.20	4.00 [4.00-4.00]	4.00	-2.29
Playing time	3.50 [3.00-5.00]	3.00	0.19	4.00 [3.00-5.00]	4.00	-0.55	4.00 [4.00-5.00]	4.00	-0.80	4.00 [2.25-4.00]	4.00	-1.14
Scorie	5.00 [2.00-5.00]	5.00	-0.51	3.00 [3.00-4.00]	3.00	0.176	4.00 [3.00-4.00]	4.00	-0.95	4.00 [3.00-4.00]	4.00	-0.11
Subtitutions	5.00 [3.00-4.00]	5.00	-2.17	4.00 [2.00-5.00]	5.00	-0.76	4.00 [4.00-5.00]	4.00	-1.94	4.00 [3.25-4.00]	4.00	-1.05
Competitive system	3.50 [1.00-5.00]	1.00	-0.30	4.00 [3.00-5.00]	4.00	-0.94	4.00 [4.00-5.00]	4.00	-1.18	4.00 [3.00-4.00]	4.00	-1.46
Playing categories	3.50 [2.00-4.25]	2.00	-0.21	4.00 [3.00-4.00]	3.00	-0.10	4.00 [4.00-5.00]	4.00	-0.70	4.00 [3.00-4.00]	4.00	-1.14
White Card	5.00 [5.00-5.00]	5.00	-2.05	5.00 [4.00-5.00]	5.00	-2.12	5.00 [4.00-5.00]	5.00	-1.96	4.50 [4.00-5.00]	5.00	-1.71
Modified Rules												
Playing space	4.00 [4.00-5.00]	4.00	0.38	4.00 [4.00-4.00]	4.00	-0.94	4.00 [3.00-5.00]	4.00	-0.88	3.50 [3.00-4.00]	4.00	-0.10
Number of players a5	4.00 [4.00-5.00]	4.00	-0.47	4.00 [4.00-4.00]	4.00	-0.53	4.00 [3.00-4.00]	4.00	-0.56	3.00 [2.25-4.00]	4.00	-0.29
Number of players a8	4.50 [4.50-5.00]	5.00	-1.13	4.00 [4.00-5.00]	4.00	-1.47	4.00 [4.00-5.00]	4.00	-1.39	4.00 [4.00-4.75]	4.00	-1.69
Playing time	5.00 [4.00-5.00]	5.00	-1.49	4.00 [3.00-4.00]	4.00	-0.50	4.00 [3.00-4.00]	4.00	-0.17	3.00 [3.00-4.00]	3.00	-0.70
Goalie	5.00 3.75-5.00]	5.00	-1.33	5.00 [4.00-5.00]	5.00	-1.28	4.00 [4.00-5.00]	4.00	-0.84	4.00 [3.00-4.00]	4.00	-0.87
Subtitutions	5.00 [4.75-5.00]	5.00	-1.32	4.00 [4.00-5.00]	4.00	-1.60	4.00 [3.00-4.75]	4.00	-1.04	4.00 [4.00-4.00]	4.00	0.00
Competitive system	5.00 [4.75-5.00]	5.00	-1.32	4.00 [3.00-4.00]	4.00	-0.50	5.00 [4.00-5.00]	5.00	-1.90	4.00 [4.00-5.00]	5.00	-1.13
Additional player	4.50 [3.75-5.00]	5.00	-1.01	4.00 [3.00-5.00]	4.00	-1.22	4.00 [3.00-4.00]	4.00	-0.96	4.00 [3.00-4.00]	4.00	-0.59
C.S. Scoail actions	5.00 [5.00-5.00]	5.00	-3.46	4.00 [4.00-5.00]	4.00	-1.60	5.00 [4.00-5.00]	5.00	-1.72	4.50 [4.00-5.00]	4.00	0.00
Decalogue	5.00 [4.75-5.00]	5.00	-2.53	5.00 [5.00-5.00]	5.00	-2.50	5.00 [4.00-5.00]	5.00	-0.64	4.00 [4.00-5.00]	4.00	-0.21
Black and White Card	5.00 [4.00-5.00]	5.00	-0.81	5.00 [4.00-5.00]	5.00	-2.12	5.00 [4.00-5.00]	5.00	-0.79	4.00 [4.00-5.00]	4.00	-2.39
Debate	5.00 [4.75-5.00]	5.00	-1.32	4.00 [4.00-5.00]	4.00	-0.96	5.00 [4.00-5.00]	5.00	-0.95	4.00 [4.00-5.00]	4.00	-0.97

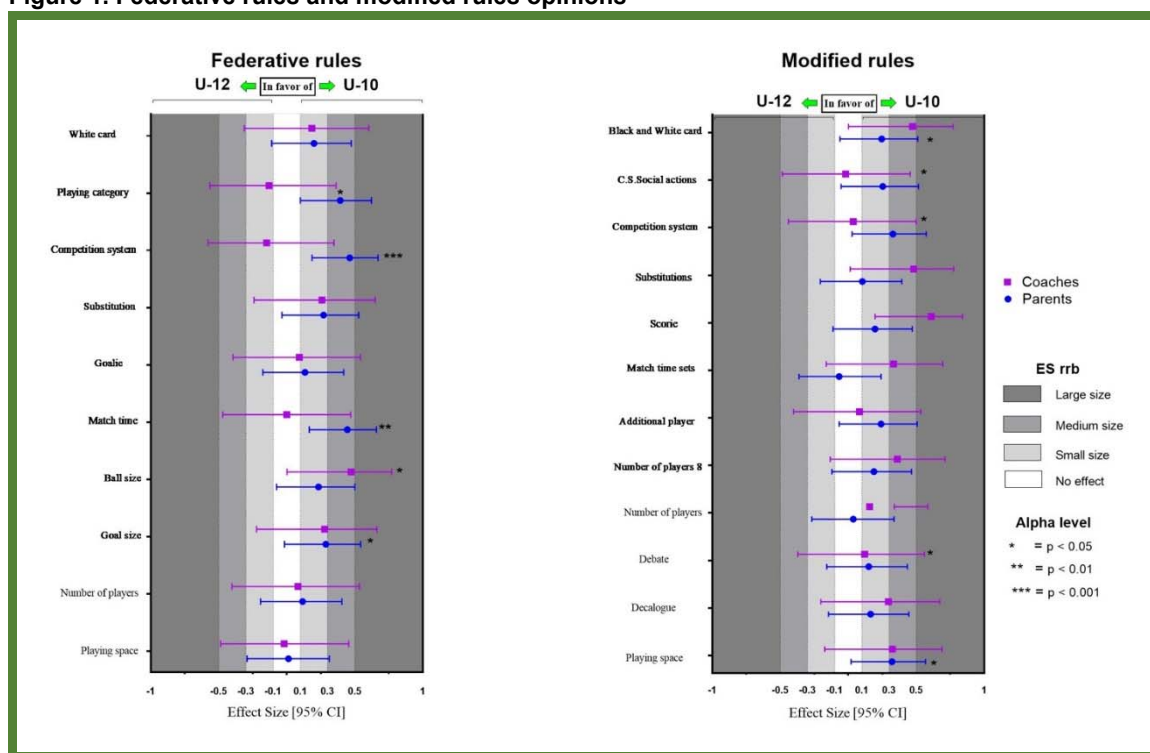
In figure 1 it can be seen median comparison between categories using Man Whitney test and Effect Size (ES). In the federative rules the median comparisons showed statistical differences (U12≤U10) in the items: goal size (Mdn U12: 4.00; Mdn U10: 4.00; U=910.500, z=2.431, p=0.030, r=0.277), ball size (Mdn U12: 4.00; Mdn U10: 4.00; U=935.00, z=2.729, p=0.009, r=0.311), playing time (Mdn U12: 4.00; Mdn U10: 4.00; U=932.500, z=2.702, p=0.014, r=0.308), subtitutions (Mdn U12: 4.50; Mdn U10: 4.00; U=900.00, z=2.299, p=0.038, r=0.262), playing categories (Mdn U12: 4.00; Mdn U10: 4.00; U=873.500, z=2.211, p=0.048, r=0.252) and competiton system (Mdn U12: 4.00; Mdn U10: 4.00; U=902.00, z=2.325, p=0.033, r=0.265).

When we compared federative rules in each playing category and its differences between the two samples we observed statistical significative differences in the items: competition system (Mdn U12: 4.00; Mdn U10: 4.00; U=547.00, z=3.464, p< .001, r=0.463), match time (Mdn U12: 4.00; Mdn U10: 4.00; U=540.50, z=3.33, p=001, r=0.445) and goal size (Mdn U12: 4.00; Mdn U10: 4.00; U=481.50, z=2.147, p=0.050, r=0. 0.287) on the parents group and ball size (Mdn U12: 5.00; Mdn U10: 4.00; U=79.50, z=2.162, p=0.044, r=0. 0.472) on the coaches group.

In the modified rules the mean comparison showed statistical differences in the items: playing space (Mdn U12: 4.00; Mdn U10: 4.00; U=944.00, z=2.843, p=0.011, r=0.324), Black and White Card (Mdn U12: 5.00; Mdn U10: 4.00; U=886.500, z=2.132, p=0.037, r=0.243), competitive system (Mdn U12: 5.00; Mdn U10: 4.00; U=938.500, z=2.772, p=0.009, r=0.316) and debate (Mdn U12: 5.00; Mdn U10: 4.00; U=934.00, z=2.72, p=0.010, r=0.310),

When we compared modified rules in each playing category and its differences between the two samples we observed statistical significant differences in the items: Black and White Card (Mdn U12: 5.00; Mdn U10: 4.00; U=496.50, z=2.454, p=0.018, r=0.328), and playing space (Mdn U12: 5.00; Mdn U10: 3.50; U=494.00, z=2.402, p=0.034, r=0.321), on the parents group and competitive system (Mdn U12: 5.00; Mdn U10: 4.00; U=87.00, z=2.799, p=0.011, r=0.611), social actions (Mdn U12: 5.00; Mdn U10: 4.00; U=80.00, z=2.204, p=0.022, r=0.481), and debate (Mdn U12: 5.00; Mdn U10: 4.00; U=79.50, z=2.162, p=0.044, r=0.472), on the coaches group.

Figure 1. Federative rules and modified rules opinions



To analyze the opinion on the regulation in U12 category, both parents and coaches assessed the current rules of the federation identically (4.04, out of 5), and both value the modified competition with higher values (4.12 parents / mothers and 4.50 coaches), with particularly high values in coaches (4.5 out of 5).

On the other hand, when analyzing the regulations in U-10 category, the coaches valued the current rules higher than the parents (3.81 vs. 3.59) and both value the modified competition rules higher than the competition rules current (3.78 parents and 4.04 coaches).

Discussion

The first objective of this study was achieved thanks to the design and validation of the questionnaire to know the opinion of coaches and parents about the current federative and modified rules. The results show that the instrument was valid and reliable to measure the opinions of coaches and parents ((to access the issue click on the following link; https://www.sugarsync.com/pf/D468743_09363839_8019558). The design and validation procedure made in this study reproduce the study of Ortega-Toro et al. (2008), in their investigation to know opinions of handball players about modified rules.

The second objective of this study was to know the opinion of coaches and parents about the current federative rules and the modified in the internal league of values of FC Cartagena, in order to make them participate in the design of an adequate competition for youth athletes. First of all, both parents and coaches don't consider the application of modified rules. These coincide with those found in Aroca & Salado-Tarodo (2019), in their study with parents of U12, in which they register 100% agreement on the current federative rules. However, when they observe a competitive system with modification of rules, they are more satisfied and have a very positive assessment of the impact and benefits that the modified rules approach. This reluctance to change may be due to fear of the unknown, generally based on the conception that any modification implies a distortion of the sport itself (McCarthy, et.al., 2016).

In the same way, they value in a very positive way the current federation rules, mainly, the new use of the White Card of the FFRM to reward fair play attitudes, followed by the size of the ball, the playing space, the size of the goal and substitutions without restrictions. The playing space and the number of players was valued positively, differing what was found in the study by Aroca & Salado-Tarodo (2019), in which a group of coaches considered an excessive number of players over the space in U12 category. However, there is evidence that smaller game formats, specifically soccer-5, allow a better experience, verifying greater variability, self-efficacy and increases in participation (García-Angulo, et al., 2020). The least valued rules are the current score, the competition system and the game categories without taking into account the level. In addition, competition system, match time and goal size were more valued on the parents group and ball size on the coaches group in U12 category than U10 category. This may be because the competition must be adapted depending on the characteristics and biological age of children and changes are more necessary at first stages of formation (Balyi & Hamilton, 2005).

The second objective was to know the assessment of the rules of the internal league of values of FC Cartagena. The use of the decalogue of behaviors and the Black and White Card to reward exemplary attitudes, the modified competitive system with solidarity actions parallel to the league, as well as the post-match debate have been the rules best valued by parents and coaches. The least valued have been the number of players 5vs5, the use of an additional player in the face of bulky results and the playing space. Therefore, there is generally great satisfaction from parents and coaches about the modified competition. These results coincide with those found in other modified competition systems, which have been tested and accepted in other sports by parents (Cañadas & Ortega-Toro, 2017) and coaches, in basketball (Ortega, et.al., 2012). Additionally, playing space and Black and White Card on the parents group and competition system, social actions and debate on the coaches group were more valued in U12 category than U10 category, Maybe they think that the older the children are, the more conscientious and reflective attitude they have to face social problems and solve the situations that arise in social actions and debate.

The use of the reduced playing space and the smaller number of players are a resource used in different spheres and which is based mainly on the benefits found for greater participation and greater number of technical actions (Abrantes, et.al., 2012; Joo, et.al., 2016). In addition, it favors the appearance of a greater number of passes, a greater number of attack and defense actions and a better occupation of space (García-Angulo, et.al., 2020). This aspect is essential in the player's training process, so that the environment allow players a large number of opportunities to execute actions (Sarmiento, et.al., 2018).

The playing time in sets allows you to maintain motivation and intensity in the game. This increased motivation can lead to greater satisfaction in practice, an essential aspect for training (MacDonald, et.al., 2011). The reduction in playing times is related to improvements in physical parameters. Longer distances covered have been recorded in intermittent situations versus more continuous durations (Casamichana, et.al., 2013). Following with physical benefits of modified rules, the incidence of the score on physical and mental fatigue has been widely evidenced, such that teams decrease technical actions when they lose, while increasing their sprint speeds per minute (Sullivan et al., 2014). In this same work, it is concluded that before tighter scores, speeds and number of physical actions at high intensity are increased. This aspect is positive, since these competition formats favor the achievement of the recommended daily physical activity parameters more successfully than other less motivating modalities for the child (Leek, et al., 2011).

The restrictions and the obligation of a minimum of minutes per player, enables equal opportunities, as well as guarantees that young people manage to reach the indicated parameters of the daily physical activity recommendations (García-Angulo, et.al., 2019). This type of initiative has been proposed in different competitions and sports, showing very favorable environments for training (McCarthy, et.al., 2016). Also, the use of an additional player has been a well-valued rule by sports technicians, in cases where results of more than four goals difference are produced (Burton, et.al., 2011). The objective of this rule in the competition was not to favor contexts of great inequality, since they can cause high levels of frustration in the participants. In this sense, there is evidence of the importance of not generating excessively stressful or frustrating competitive contexts to avoid drop out of sports practice.

The Black and White Card and the use of the decalogue were rules valued in a very positive way by coaches and parents as a tool to promote values. The use of reinforcing cards to instill values in football dates back to Finland (Galeano, 2001) and to its subsequent use and the great value it represents for the coach when guiding the promotion of values (Ortega, et.al., 2012).

Lastly, the competitive system was one of the rules best valued by parents and coaches, highlighting the value it supposes to promote social awareness and civic responsibility, by involving children in activities of a solidarity nature that have an impact on the internal league score. In this sense, evidence has been found of competitive formats for the development of positive attitudes and behaviors that have an impact on personal development and the promotion of values for the athlete. The Real Madrid Foundation, through its "Valorcesto" program, seeks to promote inclusive competitions (Ortega & Jiménez, 2012). Other sports programs (Martinek & Ruiz-Pérez, 2005) aim to develop the values of personal and civic responsibility. Modified competitions have also been held to achieve greater promotion of values in football, achieving great results, especially in the acquisition of the values responsible autonomy and respect (Veroz, et.al., 2015). However, we observe how the vast majority of studies analyzed refer to theoretical models, making it necessary to apply new methodologies and sports programs that pursue personal development and the promotion of values in children during sports practice (Cecchini, et.al., 2003).

Other rules could also be subject to debate in future works, such as the prohibition of headers. This concern is shared by the subjects surveyed about the perception of trauma, in which 96.5% consider that it can generate long-term negative effects on their children (Schatz, et.al., 2020). In this line, such adverse effects have been demonstrated, finding a higher prevalence of mortality from neurodegenerative diseases in soccer players (Mackay, et.al., 2019). Some federations like English and Irish are doing recommendations about the head footballs during trainings for all age groups between under-six and under-18, specifically they recommend no heading in training in the foundation phase (primary school children).

Despite the fact that both parents and coaches are satisfied with the current federation rules, it has been possible to verify that they feel even happier with the modified rules, valuing a large number of benefits of each of these new rules. However, each of these modifications must be analyzed in a detailed way in order to find their possible benefits and drawbacks in the sports, personal and physical training of the young athlete. In this sense, the appearance of experimental studies that analyze the effects of regulatory modifications is necessary. Likewise, works that study the preferences of the players in the rules, as well as in the game, will allow us to know what competitions can generate greater motivation and adherence in practice. Lastly, works such as this one make it possible to raise awareness and develop a reflective attitude in coaches, fathers/mothers, technicians and experts for change, which benefits more appropriate teaching-learning processes in the formative stages, considering these groups as essential to the time to develop modifications. Lastly, validated instruments, as the one designed in this work, are also need to assess the effectivity of this modified rules on competition and the opinion of all the people involved in the activities. All these data should serve the federations to design competitive systems that achieve a better adaptation of the basic sport to the characteristics and preferences of the children and that, in turn, favor the promotion of values.

The data obtained should be examined with caution. The study only analyzed the opinions of coaches and parents after the development of a competition in a short period of time, so the medium and long-term opinions of the use of the proposed modified rules are unknown. Future work should analyze the impact of applying the proposed rules after a longer

period of time. Furthermore, the study had a small and biased sample, given the specificity of the study and its easy accessibility. This could influence opinions, as well as the level of specialization of the sample. Also, holistic approaches must be carried out, which in addition to the opinions of the agents involved in training, analyze the technical-tactical, physical and psychological dimension, from a complex approach.

Conclusion

To conclude, it is important to mention the need to create and validate specific instruments that allow us to know the opinions of the main agents involved in the training process of young athletes, as the one created for this study.

However, the most relevant conclusion of the present work is that both parents and coaches are generally satisfied with the current rules of football federation, but in turn, they are even more satisfied with a modified competition with new rules. The most valued rules of the internal league are: the use of the decalogue of behaviors, the black and white card to reward exemplary attitudes, the proposed competitive system with parallel solidarity actions to the league, as well as the post-match debate between the two teams. This makes us think that both parents and coaches show great satisfaction with the rules that favor the appearance of parallel actions to sport, which allow a greater promotion of values. These two groups are essential for training and must cooperate in the same way, thus allowing the achievement of the training and educational objectives that are presupposed at these stages. This is one of the main objectives when developing competitive systems such as the one proposed by FC Cartagena SAD in the internal league of values, generating sports environments that induce the emergence of experiences to promote personal values.

Similarly, the rules they are least comfortable with are those that produce structural changes about the sport, such as the playing space or the number of players. These modifications, despite having been highlighted in other studies as very beneficial due to the greater number of technical actions, technical-tactical variability and attack, are not valued positively, perhaps due to the belief that any structural modification can cause deformations in the training processes.

This new competitive context opens the doors to teach and develop these skills from the initial stages, providing a more formative approach to the teaching and learning process. The results obtained will serve to create greater awareness about the importance of implementing new rules in current competitive formats, allowing significant improvements in the teaching-learning processes and in the personal growth of young athletes. Future studies are necessary to establish the rules most adapted to each training stage and most appropriate, so that they do not require major structural changes for easy application by institutions. Of course, always considering all the agents involved in an adequate training process: experts, coaches, parents, managers and referees.

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