

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Perception of the difficulty of analytical tasks against global tasks for youth soccer players

Percepción de la dificultad de tareas analíticas frente a globales en jóvenes jugadores de fútbol

Antonio García-Angulo^{1,2}; Francisco Javier García-Angulo¹

¹ Facultad de Ciencias del Deporte. Universidad de Murcia. Campus de Excelencia Internacional "Campus Mare Nostrum"; ² Federación de Fútbol de la Región de Murcia (FFRM)

Contact: aga37082@um.es

Editorial schedule: Article received: 24/02/2018 Accepted: 07/04/2018 Published: 01/05/2018

DOI: <https://doi.org/10.17979/sportis.2018.4.2.3344>

Abstract

Within the training processes in soccer, it is necessary for the design of tasks, that the perception of the coach's difficulty coincides with that of his players, a fact that does not always occur. Therefore, the aims of this study are: a) to assess the perception of difficulty experienced by children in sport initiation compared to tasks according to the level of difficulty perceived by the coach; and b) to identify the technical and tactical patterns of greatest learning difficulty for players in sports initiation. To this end, a qualitative study was designed with youth players in sport initiation (n=11), on which a series of tasks were applied that their trainer had ordered based on their perception of the difficulty. The most notable results show that: a) the development of certain tasks of an analytical nature that are assumed to be simpler means greater degrees of complexity for youth soccer players; and b) the perception that coaches have of the difficulty involved in small sided games is greater than the difficulty perceived by young players on this type of tasks. This data can be used by coaches in training categories to improve the design of tasks, and thus adapt the training methodology to the players.

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Keywords

Soccer; small sided games; perception of the difficulty; methodology; sport initiation.

Resumen

Dentro de los procesos formativos en el fútbol, es necesario para el diseño de tareas, que la percepción de la dificultad del entrenador coincida con la de sus jugadores, hecho que no siempre ocurre. Por ello, los objetivos del presente estudio son: a) valorar la percepción de dificultad que tienen niños en iniciación deportiva frente a unas tareas establecidas según nivel de dificultad percibido por el entrenador; y b) identificar los patrones técnico-tácticos de mayor dificultad de aprendizaje para jugadores en iniciación deportiva. Para ello se diseñó un estudio de carácter cualitativo cuya muestra fueron jóvenes jugadores en iniciación deportiva (n=11), sobre los que se aplicó una serie de tareas que su formador había ordenado en base a su percepción de la dificultad. Los resultados más destacados muestran que: a) el desarrollo de ciertas tareas de carácter analítico que se presuponen más sencillas suponen mayores grados de complejidad para los jóvenes jugadores de fútbol; y b) la percepción que tienen los entrenadores sobre la dificultad que suponen los juegos reducidos es mayor que la dificultad que perciben los jóvenes jugadores sobre este tipo de tareas. Estos datos pueden servir a los entrenadores en categorías de formación para mejorar el diseño de las tareas, y con ello adecuar la metodología de entrenamiento a los jugadores.

Palabras clave

Fútbol; juegos reducidos; percepción de la dificultad; metodología; iniciación deportiva.

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Introduction

Currently, the process of sports initiation in team sports focuses on the development of tactical concepts of sport as opposed to the traditional perspective based on the learning of technique (Bunker & Thorpe, 1982; Thorpe & Bunker, 1989).

In this way, from the perspective of traditional teaching in sport, the tasks are divided into analytical, focused on aspects generally worked on in isolation; and global tasks or reduced games, which contain all the structural elements of the sport and provide the player with a greater number of experiences and a greater technical-tactical resources (Sampaio, & Maçãs, 2012; Tallir, Musch, Valcke, & Lenoir, 2012).

In a more specific analysis of the game's internal logic, Alarcón (2008) draws up a ranking taking into account the player's goals, their behaviour and their interaction with the environment. Thus, it divides them into specific tasks (which maintain the three previous elements or simple modifications of them without altering the internal logic of the game), semi-specific tasks (one of the elements is altered, which affects the internal logic of the game, but allows learning to be more defined in specific aspects) and non-specific tasks (two or more elements are modified, considerably altering the internal logic of the game).

As for the difficulty of the task, some authors point out that it is subjective and that this difficulty depends on the perception of the person who designs the task and the people who carry it out (Kim, 2006).

As for the influence of the coach there are several studies that indicate that during the development of the tasks, the players are influenced by the presence or absence of the coach, affecting the technical and tactical aspects of the game, or factors such as intensity, and by the style of teaching that is applied during the session, linking this to factors such as the anxiety of the players (Falces-Prieto, et al., 2015; Zurita, et al., 2016).

That is why the coach must take into account these factors, taking certain measures to adapt the sport to the abilities and preferences of players such as reducing the number of

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

participants, reducing the field of play, goals and balls (García-Angulo, Ortega, & Mendoza, 2014; Lapresa, Arana, Anguera, & Garzón, 2013; Lapresa, Arana, Garzón, Egüén, & Amatria, 2010).

The use of small-sided games, in which the structural elements of the sport are maintained but not altered, have demonstrated their effectiveness in the formative processes of team sports, since this type of task increases the participation of the young player, his decision-making skills, concentration and intensity (Abrantes, Nunes, Maçãs, Leite, & Sampaio, 2012; Hill-Haas, Coutts, Dawson, & Rows, 2010).

Among the modified structural elements in soccer, the number of players is one of the most analysed. Several studies indicate that in 4v4 and 5v5 situations behaviours similar to competition occur (Aguiar, Gonçalves, Botelho, Lemmink, & Sampaio, 2015). Other studies indicate that these modifications also produce a greater number of attack-defence situations (Casamichana & Castellano, 2010).

Another aspect that has also been studied is the modification of the playing space, in this sense some studies indicate that the size of the field of play must be adjusted to the age of the players, since excessively large fields negatively influence the technical-tactical actions in formative stages (Olthof, Frencken, & Lemmink, 2017).

Based on the principle of developing a teaching style adapted to the characteristics of the children and on learning the tactics of the technique, comprehensive models emerge. Several studies have shown the benefits of using comprehensive models to improve decision-making in complex tactical situations in sports initiation (Blomqvist, Vänttinen, & Luhtanen, 2005; Conte, Moreno-Murcia, Pérez, & Iglesias, 2016).

In addition to this, the use of comprehensive models is fundamental for greater adherence to practice and satisfaction in sports practice, since the type of training proposed from these models is much more recreational and motivating for children (García-Angulo et al., 2014; García-Angulo, García-Angulo, & Ortega, 2017).

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Another aspect that must be taken into account, and on which few studies have been carried out, is the perception of difficulty that children have in sports initiation, since the vast majority of training programmes developed are based on the approaches and experience of sports trainers, but do not take into account the decisive factor that represents the perception of the difficulty of the task in the face of the complexity of the same determined by the trainers (González-Víllora, García-López, Gutiérrez & Contreras, 2010; González-Víllora, García-López, Gutiérrez, & Pastor-Vicedo, 2013; Mitchell, Oslin, y Griffin, 2013).

For all these reasons, the objectives of this study are: a) to assess the perception of difficulty that children have in sports initiation in relation to tasks established according to the level of difficulty perceived by the coach; and b) to identify the most complex technical and tactical patterns for learning in players in the stage of sports initiation.

Method

A qualitative study was carried out in which the sample under study were young football players in the training stage (n=11) with an average age of 6.91 ± 0.30 years, who were in their second year of sports initiation.

For the development of the study, a battery of technical and tactical tasks was designed. For the elaboration of the tasks (see annex 1), the principles of progression in the difficulty of the task established by Billing (1980) were used.

The typology of the tasks were as follows:

- 8 analytical tasks.
- 4 global tasks (small-sided games).

These tasks were ranked and scored by the players' coach according to the perception of difficulty he believes they represent for his players. This was done using a Likert scale from 0 to 10, where 0 was "very easy" and 10 was "very difficult".

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

The characteristics of the coach were as follows: student of Physical Activity and Sport Sciences; Sport Technician of Medium Degree in Soccer; experience as coach of 4 years; and two years in the sport management of the same group of players.

These tasks were then placed in four sessions, these sessions separated into two blocks (block 1: sessions 1-2; block 2: sessions 3-4) so that each task was developed once in each block and at the end of the block the 12 proposed tasks were completed. In each of the two sessions that made up each block, the same tasks were not carried out in the same order. In sessions 3-4, the order of the tasks in sessions 1-2 was modified so that there was no bias in the evaluation of the tasks by the players.

Between sessions 1 and 2 (block 1), and between sessions 3 and 4 (block 2) there was a period of 48 hours; one week being the period between the development of block 1 and block 2. The tasks are carried out at the same time of day and in the same weather conditions.

The study was developed in accordance with the ethical principles of research set out in the Declaration of Helsinki of the World Medical Association (WMA), for which an information letter was provided and an informed consent form was signed by the parents, taking into account the confidentiality of personal data.

Table 1 shows the distribution of tasks according to their location in the sessions.

Table 1. Distribution of tasks in the sessions.

	Block 1		Block 2	
	Session 1	Session 2	Session 3	Session 4
Task 1		X	X	
Task 2	x			x
Task 3	x		X	
Task 4		X		x
Task 5		x	X	
Task 6	x		X	
Task 7		x		x
Task 8		x		x

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Task 9	x		X	
Task 10	x			x
Task 11		x	X	
Task 12	x			x

Data collection was carried out in each session after each of the three tasks had been completed, so youth players were interviewed twice per session (six tasks were carried out in each session). The fact that players were interviewed every third task was to avoid prolonging the time between the task and the interview and to ensure that they remembered it properly. The players were interviewed one by one by the coach in private, shown a representation of the task and their development was explained to them as a reminder.

The aim of the interview was to identify which tasks the players perceived as easier and more difficult. They were then asked to rate each task according to their degree of perception of the difficulty. A Likert scale from 0 to 10 was used for each task where 0 was "very easy" and 10 was "very difficult".

At the end of the data collection, each of the youth players had classified the tasks according to their perception of the difficulty. The interviews were recorded and then viewed by the study authors and the scores each player gave to each task were recorded according to their perception of difficulty in a data table for subsequent statistical treatment.

For statistical analysis, IBM SPSS Statistics© (Statistical Package for the Social Sciences) software version 24.0 was used. A descriptive analysis was developed analysing the mean and standard deviation of each task. For the inferential analysis, and once the non-normal distribution of the data was verified by Shapiro-Wilk's test, the Mann Whitney U- test was applied.

Results

Table 2 shows the mean scores and the standard deviation obtained by each of the tasks according to the level of difficulty perceived by the player.

Table 2. Level of difficulty perceived by the coach and players

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

	Coach's perception	Player's perception Block 1	Player's perception Block 2	Player's perception Total	ρ value
Task 1	1.00	1.09±0.30	1.00±0.63	1.05±0.49	.917
Task 2	2.50	2.09±0.54	2.18±0.60	2.14±0.56	.284
Task 3	3.00	1.09±0.30	1.27±0.47	1.18±0.39	.021*
Task 4	3.50	6.27±1.68 1.33.00	6.09±1.38	6.18±1.50	.141
Task 5	5.00	3.27±1.19	3.64±0.81	3.45±1.01	.135
Task 6	5.50	3.27±0.65	3.64±0.81	3.45±0.74	.059
Task 7	6.00	5.45±0.82	5.00±1.18	5.23±1.02	.453
Tarea					
Task 8	6.50	7.00±0.45	6.64±0.92	6.82±0.73	.402
Task 9	7.50	5.00±0.45	5.18±0.60	5.09±0.53	.041*
Task 10	8.50	6.00±0.00	6.00±0.77	6.00±0.53	.041*
Task 11	9.50	6.45±0.93	6.64±0.67	6.55±0.80	.041*
Task 12	10.00	7.27±0.47	7.27±0.79	7.27±0.63	.050

The score is based on a Likert scale from 0 to 10.

*Statistically significant differences

The results of table 2 show that the task that generates the most difficulty perception in both players (=7.27) and coaches (=10.00) are the global tasks in numerical equality (Tasks 11 and 12).

On the other hand, the task that causes the least perceived difficulty for both the players (=1.05) and the coach (=1.00) is task 1. Of an analytical nature, there are no statistically significant differences between them ($z = -.105$, $\rho = .917$).

As for the tasks of an analytical nature (from 1 to 9), there is no difference between the players' perception of difficulty and that of the coach, except in task 3 where the coach has a greater perception of difficulty (=3.00) than that of the players (=1.18), which shows statistically significant differences ($z = -2.308$, $\rho = .021$).

Similarly, in Analytical Task 6 the coach's perception of difficulty is also higher (=5.50) than the players' perception (=3.45), with a slight tendency for significance in that task ($z = -1.820$, $\rho = .059$).

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Analytical task 4 shows a higher average perception of difficulty by players (=6.18) than by the coach (=3.50), although there are no statistically significant differences between coach and players ($z=-1.473$, $\rho=.141$).

As for the global tasks (from 9 to 12) the results of the table show statistically significant differences in the different reduced games. In task 9 the coach has a much higher perception of difficulty for the player (=7.50) than the players' perception (=5.09), with significant differences between both of them ($z=-2.043$, $\rho=.041$).

Similarly, statistically significant differences are again found between the coach's perception of difficulty and the perceived difficulty of the player in task 10 (=8.50; =6.00) ($z=-2.041$, $\rho=.041$) and in task 11 (=9.50; =6.55) ($z=-2.043$, $\rho=.041$).

As for task 12, which is the most difficult task perceived by players and coach, the coach perceives it as a task of greater difficulty (=10.00) than the players (=7.27). The results show a trend towards significance between the players' data and the coach's data ($z= -1.963$, $\rho=.050$).

Discussion

The aim of the present study was to analyse the perception of the difficulty that the players have in sports initiation in relation to the tasks established according to the level of difficulty perceived by the coach and to identify the technical and tactical patterns that are more complex in players' learning.

In this sense, the results show that the coach perceives as less difficult for his players analytical tasks, in which they work on isolated actions of the sport in question, than global tasks, in which all the aspects of the game are developed.

The results shown by the coach's perception of the difficulty of the tasks for his players coincide with those presented by various classical theories on learning, which indicate that designing the learning phase with less difficulty will favour transference in learning and thus

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

the retention mechanism (Schmidt & Bjork, 1992; Vickers, Livingston, Bohnert, & Holden, 1999).

However, some of the analytical actions present perceived levels of difficulty in the players that are much higher than those that the coach believes, as occurs in tasks 4 and 8, highlighting that these two tasks are among the four tasks with the greatest perception of difficulty by the player.

Analyzing them, certain patterns are observed that increase the complexity of the results. In the specific case of these tasks, a high level of sports specialization and maturation of the perceptive-motor development that the young player has not yet acquired is required, since, according to Gallahue (1982), children aged 6-7 are at the stage of maturity within the phase of fundamental movements, so they have not yet achieved the phase of movements applied to sport. This produces a low success rate in this task and creates a high level of difficulty for youth players.

This information is particularly relevant, as classical models based on analytical learning indicate that this type of analytical task facilitates learning and guarantees greater retention and transfer to sport (Raastad, Aune, & van den Tillaar, 2016; Vickers et al., 1999), which is in contrast to what was found in this study.

For this reason, the tasks must be adapted to the level of perceptive development of the player, based on the players' needs and the level of previous knowledge and skills they possess (Alarcón, Cárdenas, Miranda, Ureña, & Piñar, 2010).

As for the perception of difficulty generated by small-sided games with a greater tactical component and which the coach believes are the most difficult for players, only two of them are among those perceived as the most difficult by players. Moreover, in all of them the player's perception is, from a statistical point of view, significantly lower than the player's perception of difficulty.

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

These data support the results of other studies that indicate that adding more complexity to the task favours transfer and retention mechanisms more than performing analytical tasks (Li & Lima, 2002; Renshaw, Chow, Davids, & Hammond, 2010).

In turn, this coincides with the current lines of work of sports education, which from an ecological perspective indicate that learning should be based on an adaptation of sport itself to the characteristics of the youth player and on the development of tactical thinking (Chow, et al., 2006; Pinder, Davids, Renshaw, & Araújo, 2011).

But the perception of difficulty is not an isolated factor, but is influenced by other psychological factors such as satisfaction and self-efficacy. Satisfaction is a two-way (extrinsic-intrinsic) construct that influences numerous factors within team sports such as the perception of effort, persistence of activity, cooperation or positive moods, which ultimately influence the perception of difficulty that an individual may have in the face of a task (Baard, Deci, & Ryan, 2004; Quested, et al., 2013; Weinberg & Gould, 2014).

Another theory to consider is the theory of self-efficacy, according to which the player will perceive a greater or lesser effectiveness according to three factors: personal, behavioural and environmental factors (Bandura, 1989).

In the present paper, the various tasks were developed under normal training conditions, in the same facilities and with the same teammates. This fact must be taken into account, since the sum of these factors influence the perceived self-efficacy, and ultimately the player's perception of difficulty (Hays, Thomas, Maynard & Bawden, 2009).

These psychological aspects have an influence on this study since the tactical component tasks proposed are closely related to real game situations, and several studies indicate that the real game situations in which goalkeepers take part are the ones that generate the greatest satisfaction and preference among young players (García-Angulo et al., 2017; García-Angulo et al., 2014).

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

As for the limitations of the study and the possible lines of research, it is important to note that it is a small sample and a very specific age. It would be interesting to replicate the study with larger samples and in other categories to compare the data.

Another interesting aspect to study is the impact of other psychological factors, related to motivation and adherence to practice on tasks, as well as their relation to perceived difficulty. It would also be interesting to analyse if the perception of difficulty in the task is influenced, as the Self-Efficacy Theory states, by external factors; therefore, it would be interesting to carry out this type of study in contexts that are unusual for the player, analysing the variations produced in the player's perception of difficulty.

Conclusions

The most relevant conclusions of the present study, which has attempted to evaluate the perception of the difficulty of the task of youth football players in relation to the perception of the difficulty of the task of their coach, indicate that the development of certain tasks of an analytical nature implies greater levels of complexity for youth football players. Similarly, coaches' perceptions of the difficulty of reduced play are greater than those of youth players in this type of task. This data can be used by coaches in training categories to guide the preparation and development of tasks, thereby applying a training methodology more in line with the demands of the players.

Bibliographic references

Abrantes, C. I., Nunes, M. I., Maçãs, V. M., Leite, N. M., & Sampaio, J. E. (2012). Effects of the number of players and game type constraints on heart rate, rating of perceived exertion, and technical actions of small-sided soccer games. *The Journal of Strength & Conditioning Research*, 26(4), 976-981.

Alarcón, F. (2008). *Incidencia de un programa de entrenamiento para la mejora táctica colectiva del ataque posicional de un equipo de baloncesto masculino*. Tesis Doctoral no publicada. Universidad de Granada.

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Alarcón, F., Cárdenas, D., Miranda, M. T., Ureña, N., & Piñar, M. I. (2010). La metodología de enseñanza en los deportes de equipo. *Revista de investigación en educación*, 7, 91-103.

Aguiar, M., Gonçalves, B., Botelho, G., Lemmink, K., & Sampaio, J. (2015). Footballers' movement behaviour during 2-, 3-, 4-and 5-a-side small-sided games. *Journal of sports sciences*, 33(12), 1259-1266.

World Medical Association. (2013). AMM Declaration of Helsinki. Ethical principles for medical research involving human subjects. Adopted by the 18th World Medical Assembly in Helsinki and amended by the General Assembly in Fortaleza.

Baard, P. P., Deci, E. L., & Ryan, R. M. (2004). Intrinsic need satisfaction: A motivational basis of performance and well-being in two work settings. *Journal of applied social psychology*, 34(10), 2045-2068.

Bandura, A. (1989). Regulation of cognitive processes through perceived self-efficacy. *Developmental psychology*, 25(5), 729.

Billing, J. (1980). An overview of task complexity. *Motor skills: theory into practice*, 4(1), 18-23.

Blomqvist, M., Vääntinen, T., & Luhtanen, P. (2005). Assessment of secondary school students' decision-making and game-play ability in soccer. *Physical Education and Sport Pedagogy*, 10(2), 107-119.

Bunker, D., & Thorpe, R. (1982). A model for the teaching of games in secondary schools. *Bulletin of physical education*, 18(1), 5-8.

Casamichana, D., & Castellano, J. (2010). Time–motion, heart rate, perceptual and motor behaviour demands in small-sides soccer games: Effects of pitch size. *Journal of sports sciences*, 28(14), 1615-1623.

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Chow, J. Y., Davids, K., Button, C., Shuttleworth, R., Renshaw, I., & Araujo, D. (2006). Nonlinear pedagogy: a constraints-led framework for understanding emergence of game play and movement skills. *Nonlinear dynamics, psychology, and life sciences*, 10(1), 71-103.

Conte, L., Moreno-Murcia, J. A., Pérez, G., & Iglesias, D. (2016). Traditional and comprehensive comparison methodology in practice basketball. *Revista Internacional de Medicina y Ciencias de la Actividad Física y del Deporte*, (51).

Falces-Prieto, M., Casamichana, D., Sáez de Villarreal, E., Requena-Sánchez, B., Carling, C., & Suárez-Arronez, L. J. (2015). The presence of the head coach during a small-sided game: effects on players' internal load and technical performance. *RICYDE. Revista Internacional de Ciencias del Deporte*, 11(41), 245-257.

Gallahue, D. L. (1982). Assessing motor development in young children. *Studies in Educational Evaluation*, 8(3), 247-252.

García-Angulo, A., García-Angulo, F.J., & Ortega, E. (2017). Level of satisfaction and technical-tactical preferences of handball players in formative stages by gender of players. *SPORT TK-Revista EuroAmericana de Ciencias del Deporte*, 6(2), 21-30.

García-Angulo, A., Ortega, E., & Mendoza, R. (2014). Levels of satisfaction and preferences handball players in technical and tactical actions by play category. *E-balonmano. com: Revista de Ciencias del Deporte*, 10(3).

González-Víllora, S., García-López, L. M., Gutiérrez, D., & Contreras, O. R. (2010). Tactical awareness and decision making in youth football players (12 years): A descriptive study. *Journal for the Study of Education and Development*, 33(4), 489-501.

González-Víllora, S., García-López, L. M., Gutiérrez, D., & Pastor-Vicedo, J. C. (2013). Tactical awareness, decision making and skill in youth soccer players (under-14 years). *Journal of Human Sport and Exercise*, 8(2).

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Hays, K., Thomas, O., Maynard, I., & Bawden, M. (2009). The role of confidence in world-class sport performance. *Journal of sports sciences*, 27(11), 1185-1199.

Hill-Haas, S. V., Coutts, A. J., Dawson, B. T., & Rowsell, G. J. (2010). Time-motion characteristics and physiological responses of small-sided games in elite youth players: the influence of player number and rule changes. *The journal of strength & conditioning research*, 24(8), 2149-2156.

Kim, J. (2006). Task difficulty as a predictor and indicator of web searching interaction. In *CHI'06 Extended Abstracts on Human Factors in Computing Systems* (pp. 959-964). ACM.

Lapresa, D., Arana, J., Anguera, M. T., & Garzón, B. (2013). Comparative analysis of sequentiality using SDIS-GSEQ and THEME: A concrete example in soccer. *Journal of sports sciences*, 31(15), 1687-1695.

Lapresa, D., Arana, J., Garzón, B., Egüén, R., & Amatria, M. (2010). Adapting Competition in Beginners' Football: A Comparative Study of 3-a-side football and 5-a-side Football in the Under-eights. *Apunts. Educació Física i Esports*, (101), 43.

Li, Y., & Lima, R. P. (2002). Rehearsal of task variations and contextual interference effect in a field setting. *Perceptual and Motor Skills*, 94(3), 750-752.

Mitchell, S. A., Oslin, J. L., & Griffin, L. L. (2013). *Teaching sport concepts and skills: A tactical games approach for ages 7 to 18*. Human Kinetics.

Olthof, S. B., Frencken, W. G., & Lemmink, K. A. (2017). Match-derived relative pitch area changes the physical and team tactical performance of elite soccer players in small-sided soccer games. *Journal of Sports Sciences*, 1-7.

Pinder, R. A., Davids, K., Renshaw, I., & Araújo, D. (2011). Representative learning design and functionality of research and practice in sport. *Journal of Sport and Exercise Psychology*, 33(1), 146-155.

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Quested, E., Ntoumanis, N., Viladrich, C., Haug, E., Ommundsen, Y., Van Hoye, A., ... & Duda, J. L. (2013). Intentions to drop-out of youth soccer: A test of the basic needs theory among European youth from five countries. *International Journal of Sport and Exercise Psychology*, 11(4), 395-407.

Raastad, O., Aune, T. K., & van den Tillaar, R. (2016). Effect of practicing soccer juggling with different sized balls upon performance, retention, and transfer to ball reception. *Motor Control*, 20(4), 337-349.

Renshaw, I., Chow, J. Y., Davids, K., & Hammond, J. (2010). A constraints-led perspective to understanding skill acquisition and game play: A basis for integration of motor learning theory and physical education praxis?. *Physical Education and Sport Pedagogy*, 15(2), 117-137.

Sampaio, J., & Maças, V. (2012). Measuring tactical behaviour in football. *International Journal of Sports Medicine*, 33(05), 395-401.

Schmidt, R. A., & Bjork, R. A. (1992). New conceptualizations of practice: Common principles in three paradigms suggest new concepts for training. *Psychological Science*, 3(4), 207-218.

Tallir, I., Musch, E., Valcke, M., & Lenoir, M. (2005). Effects of two instructional approaches for basketball on decision-making and recognition ability. *International Journal of Sport Psychology*, 36(2), 107-126.

Thorpe, R., & Bunker, D. (1989). A changing focus in games education. In L. Almond (Ed.), *The place of physical education in schools* (pp. 42-71). London: Kogan Page.

Vickers, J. N., Livingston, L. F., Bohnert, S., & Holden, D. (1999). Decision training: the effects of complex instruction, variable practice and reduced delayed feedback on the acquisition and transfer of a motor skill. *Journal of Sports Sciences*, 17(5), 357-367.

Weinberg, R. S., & Gould, D. (2014). *Foundations of Sport and Exercise Psychology*, 6th edition. Human Kinetics.

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Zurita, F., Pérez, A. J., González, G., Castro, M., Chacón, R., & Ambris, J. (2016). Teaching styles of coaches and players regarding anxiety in different categories of youth football. *Sportis. Scientific Journal of School Sport, Physical Education and Psychomotricity*, 2(3), 390-411.


For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Annex 1

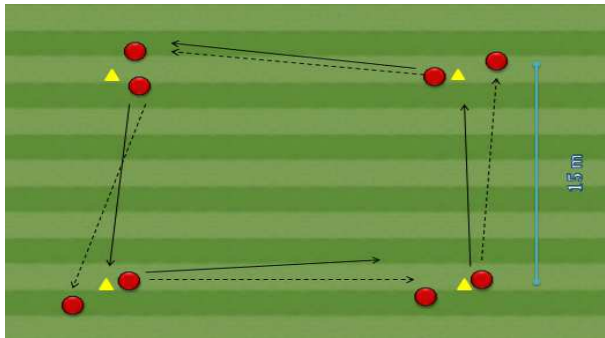
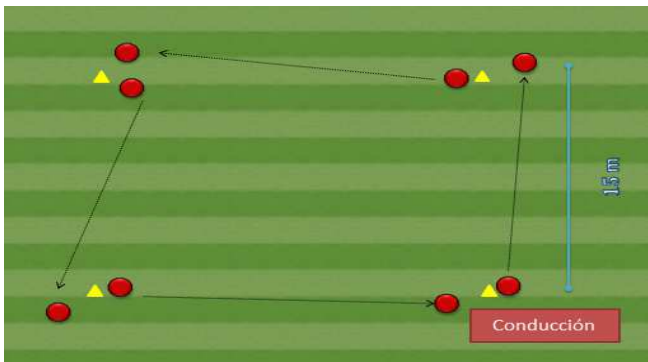
Tasks selected by the coach and classified according to their perception of difficulty:

Task 1
<p><u>Aim of the task:</u></p> <ul style="list-style-type: none"> ● Improve individual technique: passing and control.
<p><u>Success criteria:</u></p> <ul style="list-style-type: none"> ● To make 10 consecutive passes without losing control of the ball.
<p><u>Development:</u></p> <ul style="list-style-type: none"> ● In a static position, 4 metres apart, we will pass and control the ball without it lifting from the ground.
<p><u>Organization:</u></p> <ul style="list-style-type: none"> ● In pairs, facing each other 4 metres apart.
<p><u>Graphic:</u></p> 
Task 2
<p><u>Aim of the task:</u></p> <ul style="list-style-type: none"> ● Improve individual technique: passing and control.
<p><u>Success criteria:</u></p> <ul style="list-style-type: none"> ● Return to the starting position after passing through all the cones without any ball leaving the square.
<p><u>Development:</u></p> <ul style="list-style-type: none"> ● Forming a square with cones in the vertices, three people and two balls will be placed at each cone, one at each opposite cone. We'll control and pass the ball to the right. After passing the ball we go to the cone to which we've passed the ball.
<p><u>Organization:</u></p> <ul style="list-style-type: none"> ● In square, three at each vertex and with two balls at opposite vertices of the square.

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

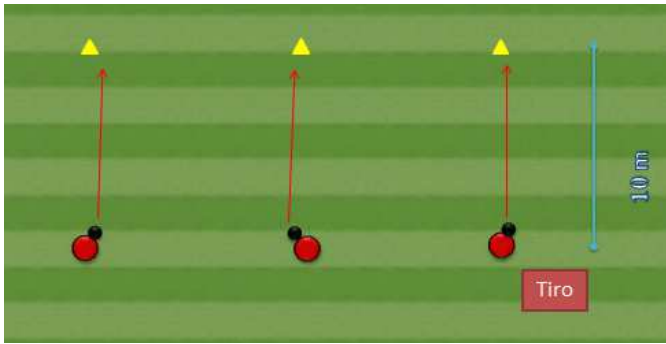
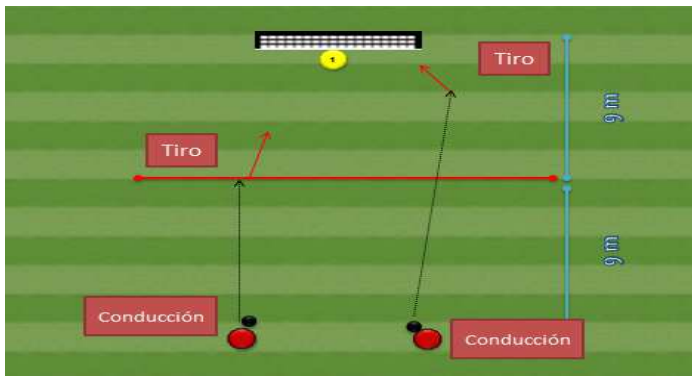
Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

<p><u>Graphic:</u></p> 
<p>Task 3</p>
<p><u>Aim of the task:</u></p> <ul style="list-style-type: none"> • Improve individual technique: ball handling and dribbling.
<p><u>Success criteria:</u></p> <ul style="list-style-type: none"> • Make two full laps around the square.
<p><u>Development:</u></p> <ul style="list-style-type: none"> • We will dribble the ball to the right. After arriving at that cone we will give the ball to the next teammate, otherwise there will be no one to continue dribbling around the cones on the outside.
<p><u>Organization:</u></p> <ul style="list-style-type: none"> • Forming a square with cones in the vertices, three people and two balls will be placed at each cone, one at each opposite cone. As the exercise progresses, balls will be introduced until there is one fewer ball than the number of players.
<p><u>Graphic:</u></p> 
<p>Task 4</p>
<p><u>Aim of the task:</u></p> <ul style="list-style-type: none"> • Improve individual technique: Shooting on goal while standing still.
<p><u>Success criteria:</u></p> <ul style="list-style-type: none"> • Knock the cones down.
<p><u>Development:</u></p> <ul style="list-style-type: none"> • At the coach's signal, players will shoot on goal starting from the left with a single shot.

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

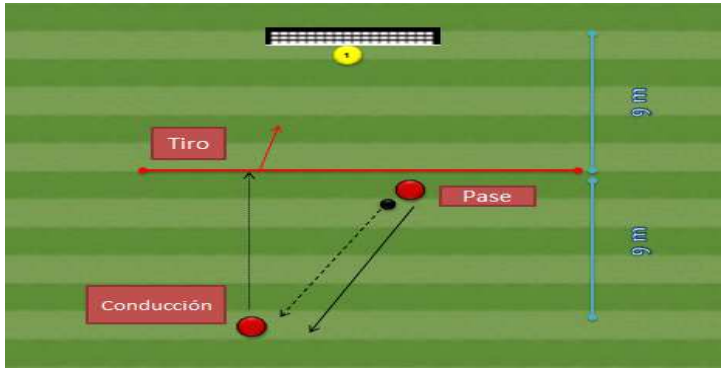
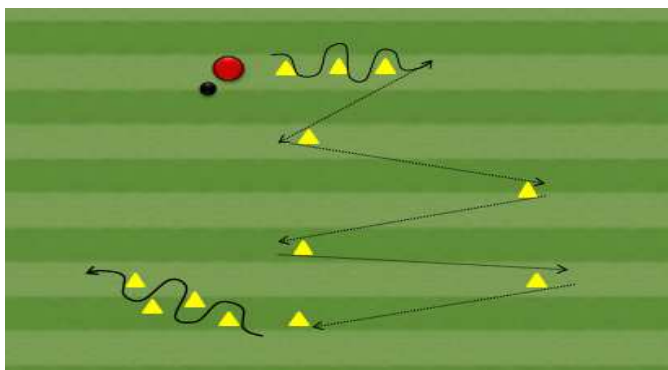
Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

<p>Organization:</p> <ul style="list-style-type: none"> • Located on an imaginary line parallel to the goal and at a distance of 10 meters. Each player with one ball.
<p>Graphic:</p> 
<p>Task 5</p>
<p>Aim of the task:</p> <ul style="list-style-type: none"> • Improve the individual technique: Shooting on goal while running.
<p>Success criteria:</p> <ul style="list-style-type: none"> • To score a goal.
<p>Development:</p> <ul style="list-style-type: none"> • The players will shoot on goal while running from 18 metres away and without passing a line marked at 9 metres. • The players will shoot on goal while running starting from 18 metres away and without being able to shoot before the 3-meter mark forcing them to have a 1 on 1 with the goalkeeper.
<p>Organization:</p> <ul style="list-style-type: none"> • In two rows located 18 meters away, one row will attack one goal and the other row the other. Every player has a ball.
<p>Graphic:</p> 
<p>Task 6</p>
<p>Aim of the task:</p> <ul style="list-style-type: none"> • Improve the individual technique: Shooting at goal while running and after a previous control.

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

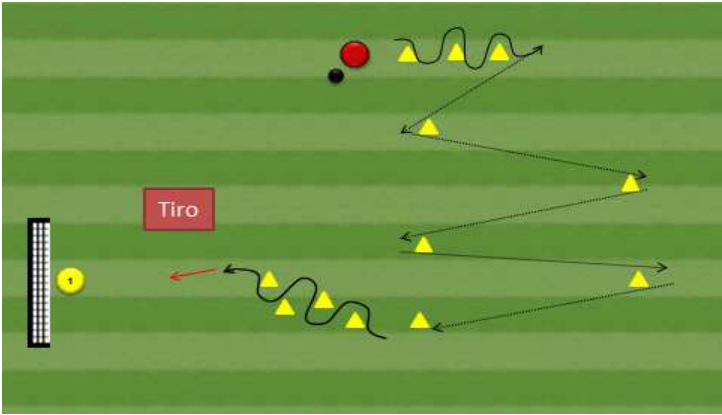
Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

<p><u>Success criteria:</u></p> <ul style="list-style-type: none"> To score a goal.
<p><u>Development:</u></p> <ul style="list-style-type: none"> The players will shoot on goal while running starting from 18 metres away and without passing a line marked at 9 metres and after receiving a pass from another team-mate.
<p><u>Organization:</u></p> <ul style="list-style-type: none"> In two rows located 18 meters away, one of these will attack one goal and the other row the other. Every player has a ball.
<p><u>Graphic:</u></p> 
<p>Task 7</p>
<p><u>Aim of the task:</u></p> <ul style="list-style-type: none"> Improve individual technique: ball handling and dribbling.
<p><u>Success criteria:</u></p> <ul style="list-style-type: none"> Complete the circuit in less than 60 seconds.
<p><u>Development:</u></p> <ul style="list-style-type: none"> Each player with a ball must carry out the established circuit by dribbling the ball with his foot, respecting the instructions given.
<p><u>Organization:</u></p> <ul style="list-style-type: none"> In rows, one player starts every 10 seconds. Each player has a ball. At the end of the circuit the players will return to the starting position.
<p><u>Graphic:</u></p> 
<p>Task 8</p>

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

<p><u>Aim of the task:</u></p> <ul style="list-style-type: none"> ● Improve the individual technique: handling of the ball, dribbling and shooting while running.
<p><u>Success criteria:</u></p> <ul style="list-style-type: none"> ● Make the established circuit in less than 60 seconds and score a goal.
<p><u>Development:</u></p> <ul style="list-style-type: none"> ● Each player with a ball must carry out the circuit established by dribbling the ball with the foot, respecting the instructions given. When the skill circuit ends, the player must shoot from a distance of 9 meters.
<p><u>Organization:</u></p> <ul style="list-style-type: none"> ● In rows, one player starts every 20 seconds. Each player has a ball. After shooting on goal, each player picks up his ball and returns to the starting position.
<p><u>Graphic:</u></p> 
<p><u>Task 9</u></p>
<p><u>Aim of the task:</u></p> <ul style="list-style-type: none"> ● Development of tactical thinking and decision making.
<p><u>Success criteria:</u></p> <ul style="list-style-type: none"> ● To score a goal.
<p><u>Development:</u></p> <ul style="list-style-type: none"> ● 3 players plus a goalkeeper (team 1) will play against 1 defender and his goalkeeper (team 2). The game begins with a kick by the goalkeeper of team 2 who must stop the goalkeeper of team 1. At this point, an attacker starts against a defender with the aim of scoring goal. If the defender recovers the ball he must try to score a goal. ● The duration of each round must be less than 90 seconds.
<p><u>Organization:</u></p> <ul style="list-style-type: none"> ● In team 1: A goalkeeper, a player on the right side of the field, a player on the left side and a third player in the middle of the field. ● In team 2: A goalkeeper and a player placed in the middle of the field. ● The ball starts from the goalkeeper of team 2.

For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

Graphic:



Task 10

Aim of the task:

- Development of tactical thinking and decision making.

Success criteria:

- To score a goal.

Development:

- 3 players plus his goalkeeper (team 1) will play against 2 defenders and their goalkeeper (team 2). The game begins with a kick by the goalkeeper of team 2 who must stop the goalkeeper of team 1. At this point, an attacker starts against a defender with the aim of scoring goal. If the defender recovers the ball he must try to score a goal.
- The duration of each round must be less than 90 seconds.

Organization:

- In team 1: A goalkeeper, a player on the right side of the field, a player on the left side and a third player in the middle of the field.
- In team 2: A goalkeeper, a player placed in the centre-right of the field and another in the centre-left of the field.
- The ball starts from the goalkeeper of team 2.

Graphic:



Task 11


Aim of the task:

- Development of tactical thinking and decision making.

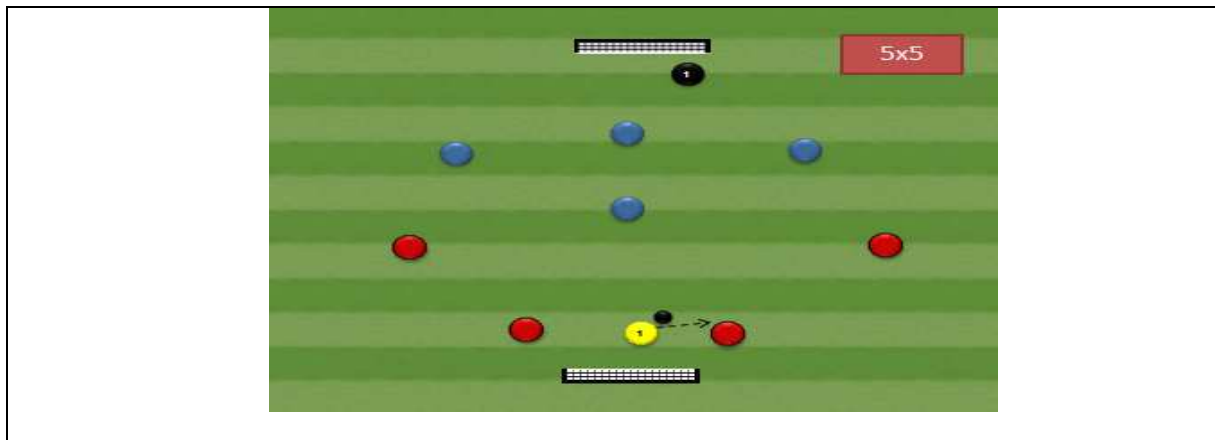
For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:https://doi.org/10.17979/sportis.2018.4.2.3344

<http://revistas.udc.es/>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333

<p><u>Success criteria:</u></p> <ul style="list-style-type: none"> ● To score a goal.
<p><u>Development:</u></p> <ul style="list-style-type: none"> ● 3 players plus a goalkeeper (team 1) will play against 3 defenders and their goalkeeper (team 2). The game begins with a kick by the goalkeeper of team 2 who must stop the goalkeeper of team 1. At this point, an attacker starts against a defender with the aim of scoring goal. If the defender recovers the ball he must try to score a goal. ● The duration of each round must be less than 90 seconds.
<p><u>Organization:</u></p> <ul style="list-style-type: none"> ● In team 1: A goalkeeper, a player on the right side of the field, a player on the left side and a third player in the middle of the field. ● In team 2: A goalkeeper, a player on the right, a player in the middle and a third on the left side of the field. ● The ball starts from the goalkeeper of team 2.
<p><u>Graphic:</u></p> 
<p><u>Task 12</u></p>
<p><u>Aim of the task:</u></p> <ul style="list-style-type: none"> ● Development of tactical thinking and decision making. Bring soccer to real play situations.
<p><u>Success criteria:</u></p> <ul style="list-style-type: none"> ● To score more goals than the opposing team.
<p><u>Development:</u></p> <ul style="list-style-type: none"> ● Real match of 5 on 5 players with the competition-format rules for this age group.
<p><u>Organization:</u></p> <ul style="list-style-type: none"> ● Two teams of 5 players.
<p><u>Graphic:</u></p>

Original article. Perception of the difficulty of analytical tasks against global tasks for youth soccer players Vol. IV, Issue 2; p. 306-330, may 2018. A Coruña. Spain ISSN 2386-8333



For cite this article you must use this reference: García-Angulo, A; García-Angulo, F.J. (2018). Perception of the difficulty of analytical tasks against global tasks for youth soccer players *Sportis Sci J*, 4 (2), 306-330. DOI:<https://doi.org/10.17979/sportis.2018.4.2.3344>

<http://revistas.udc.es/>