

Mancha-Triguero, D.; Reina, M.; Feu, S. e Ibáñez, S.J. (202x) Influence of the Coach's Profile in Formative Basketball Training. Revista Internacional de Medicina y Ciencias de la Actividad Física y el Deporte vol. X (X) pp. xx. <http://cdeporte.rediris.es/revista/>\_\_\_\*

## ORIGINAL

### INFLUENCE OF THE COACH'S PROFILE IN FORMATIVE BASKETBALL TRAINING

### INFLUENCIA DEL PERFIL DEL ENTRENADOR EN EL ENTRENAMIENTO EN BALONCESTO FORMATIVO

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**Código UNESCO / UNESCO code:** 580107 (Métodos Pedagógicos/  
Pedagogical Methods)

**Clasificación Consejo de Europa / Council of Europe classification:** 5  
(Didáctica y Metodología/ Didactics and methodology)

**Recibido** 19 de abril de 2020 **Received** April 19, 2020

**Aceptado** 5 de diciembre de 2020 **Accepted** December 5, 2020

#### FUNDING

This research was partially subsidized by the Assistance to Research Groups (GR18170) from the Regional Government of Extremadura (Department of Economy and Infrastructure); with the contribution of the European Union through FEDER and for the financial aid for predoctoral students granted by the University of Extremadura through its own research plan.

#### ABSTRACT

One of the main needs of coaches is to know if their training processes meet the planned requirements. Therefore, the objectives of this research were to evaluate how Pedagogical and External Load Variables affect training, and to describe differences between two teams based on the training methodology used. This work is classified as an empirical study with descriptive, observational, categorical and quantitative methodology. A total of 664 tasks

performed by two basketball teams were analysed. The results showed that there are significant differences in most of the variables analysed depending on the coach. Therefore, it is concluded that the methodology is related in the design of the tasks, causing differences in the Pedagogical and External Load Variables. These differences mean that a player who is trained with an alternative methodology faces a greater training load, which leads to a better adaptation to competition and better results.

**KEYWORDS:** Training, Coach, SIATE, Basketball, Teaching Methodology.

## RESUMEN

Una de las principales necesidades de los entrenadores es conocer si sus procesos de entrenamiento reúnen los requisitos planificados. Para ello, los objetivos de esta investigación fueron evaluar cómo Variables Pedagógicas y de Carga Externa afectaban al entrenamiento y describir las diferencias según la metodología empleada. Esta investigación se clasificó como estudio empírico con metodología descriptiva y gran validez ecológica. Se analizaron un total de 664 tareas realizadas por dos equipos de baloncesto. Los resultados demostraron que existen diferencias significativas en todas las variables excepto el Tipo de Contenido y el Grado de Oposición en función del entrenador. Por tanto, se concluyó que la metodología influye en el diseño de las tareas, provocando diferencias en las Variables Pedagógicas y de Carga Externa. Estas diferencias provocan que el jugador entrenado bajo una metodología alternativa soporte mayor carga de entrenamiento, repercutiendo en una mejor adaptación a la competición y obteniendo mejores resultados.

**PALABRAS CLAVE:** Entrenamiento, Entrenador, SIATE, Baloncesto, Metodología de enseñanza.

## INTRODUCTION

Basketball is a team sport, which presents in its systemic-complex nature, a conflict of objectives inherent to the game (situations of cooperation and opposition) in an environment endowed with unpredictability and randomness (Reverdito, & Scaglia, 2009). The competition is organised into categories depending on the age of the players, with each training period of the player requiring a different treatment of the contents, and having to use the most appropriate training means for its development (Cañadas, Ibáñez, García, Parejo, & Feu, 2010).

The person in charge of directing the training process is the coach, who assumes the functions of planning, designing and carrying out the desired training process (Ibáñez, 2008). In addition, the role of the coach is very important, since they must not only direct the process, but also because of the leadership they exercise over the athletes (Rathwell, & Young, 2018; Machida, Schaubroeck, Gould, Ewing, & Feltz, 2017; Falcão, Bloom, & Bennie, 2017).

The training process directed by coaches, as well as their methodology, is the result of the training they have received, previous experiences and their capacity for innovation (Clemente, Martins, & Mendes, 2015). Regarding the figure of the coach, Ibáñez (1998) established six theoretical profiles of the coach: aspects related to the philosophy, style and climate of training, material resources, taking into account the coach-assistant relationship, and the coach-player relationship to represent the coach's orientation during the training process. The classification differentiates between traditional, technological, innovative, collaborative, dialoguing and critical coaches. Going deeper into this classification, Feu, Ibáñez, Graça and Sampaio, (2007) complement the dimensions used by Ibáñez (1998) on the philosophy of training and include the method, planning and evaluation of training. The profiles characterise the figure of the coach, providing a general and self-perceptive vision of their traits as instructors (Feu et al., 2007).

Trainers' profiles are directly related to their intervention and therefore, describe their specific methodology. Two major methodological approaches can be distinguished. The teacher / trainer-centred methodology (Teacher Centred Approach, hereinafter TCA), is characterised by being based on the teaching of specific technical skills within highly structured lessons (Allison, & Thorpe, 1997). On the other hand, there is the student-centred methodology (Student Centred Approach, hereinafter SCA); an alternative that is characterised by tactical awareness and decision-making within the structure of an appropriate sports game, using modified games and teaching skills when appropriate and always adapted to individual levels (Furley, & Memmert, 2015). Regarding the approach to the training process, the model under which it is framed is also relevant. Two models can be differentiated: Direct Instruction (hereinafter, DI), which is the most common model of the Teacher-Centred Approach (TCA) methodology (Pereira, Hastie, Araújo, Farias, Rolim, & Mesquita, 2015) characterised by the coach being the one who "places himself at the centre of the scene" (Curtner-Smith, & Sofo, 2004); and the Student-Centred Approach or Tactical Games Approach (SCA or TGA) methodology characterised by focusing on the student as the axis of the training process from a multidimensional perspective (Farias, Mesquita, & Hastie, 2015).

The coach's methodology influences the design of the tasks and the intervention on the variables that relate to the training. The tasks are made up of different pedagogical variables that offer information to the coach about their characteristics, the content that is to be worked on during the activity, the type of activity, and the relationship among the athletes and explain how the task has to be organised (Ibáñez, 2008). Moreover, in addition, each task has an internal and external load component that can be evaluated by the trainer in order to quantify the physical component of the training session, for which Ibáñez, Feu, & Cañadas (2016) designed an instrument to quantify the training load.

Two methods of load quantification are identified: on the one hand, based on subjective measures and, on the other hand, on objective measures (Reina, Mancha-Triguero, García-Santos, García-Rubio & Ibáñez, 2019). Subjective instruments are characterised by not needing specific equipment, thus involving a very low economic cost. In this section, instruments such as subjective effort

scales stand out (Ibáñez et al., 2016). On the other hand, objective measurements require a high economic cost and need for special equipment, for example, for techniques such as video analysis (Time-Motion Analysis), analysis of kinematic variables using inertial devices that analyse different variables through triaxial accelerometry (Barreira et al., 2016) or internal load through the analysis of the athlete's heart rate (Liberal, & García-Mas, 2011).

Reviewing the literature, it can be observed that research on the coach in Spain is gaining relevance, as the number of doctoral theses defended on this subject is increasing (Ibáñez, García-Rubio, Antúnez, & Feu, 2019), with the analysis of the training process currently being a topic on the rise (Milistedt, Trudel, Mesquita, & do Nascimento, 2014; Gamonales, Gómez-Carmona, León, Muñoz-Jiménez, & Ibañez, 2020; Reina, García-Rubio & Ibáñez, 2020). In addition, this subject that is in continuous growth, will reach greater maturity when there is a greater number of works that share this research object (Ibáñez, García-Rubio, Antúnez, & Feu, 2019). The training of the coach is increasingly regulated and includes competencies related to professional intervention from different aspects related to the integral training of the athlete (Feu, García-Rubio, Antúnez, & Ibáñez, 2018). Although it is a highly researched topic, there is a lack of knowledge regarding works that analyse the teaching-learning process based on the trainer's profile. Therefore, the objective of this study was to describe the training process designed by each coach through the analysis of training tasks and to compare both processes to find out the methodological differences, if any, in basketball teams in training categories. This research was carried out through the characterisation of the training tasks from pedagogical variables and external load. This study presents a high degree of ecological validity because only the tasks are analysed as prepared by the trainer without the possibility of intervention in the design.

## **METHOD**

### **DESIGN**

The research design is classified as an empirical study with a quantitative, descriptive methodology using a natural, and retrospective observational code expressly designed at the beginning of the research (Montero, & León, 2007).

First, the research team contacted the club and the coaches to inform them about the project. Once the proposal had been accepted, an informed consent was made for, and signed by the coaches and the club with relevant information about the research. Second, all sessions were recorded ecologically (without interfering with the design or development of training). After collecting data from each team, a meeting was held with each coach to confirm that what was recorded was in accordance with what had been planned in the different training sessions. Next, the statistical analysis was performed. With the results of the analysis, a meeting was convened with the coaches, club managers and the research team to report on the findings. The process of recording the training sessions began the week the competition started and ended with the end of the competition. Non-competitive periods (preseason or postseason) were not analysed.

## **PARTICIPANTS**

The participants were two basketball coaches from two Under 16 category basketball teams that compete at the regional level consisting of 12 players each. Both teams belonged to the same club, were in the same category and had the same aims in competition. The coaches analysed presented their self-defined profiles, using the Coach Orientation Questionnaire (COQ) by Feu et al., (2007). In addition, the coach using method A had 30 years' experience (Doctor of Physical Education and Level 3 Coach). The characteristics of the team players were  $15.46 \pm 0.77$  years old, an average height of  $178 \pm 8.70$  centimetres, a wingspan of  $178 \pm 7.73$  centimetres and an average weight of  $64.6 \pm 10.09$  kilograms. The coach using method B (Level 2 Coach) had 10 years' experience. The characteristics of the team players were  $14.23 \pm 0.46$  years old, an average height of  $173 \pm 8.55$  centimetres, a wingspan of  $170 \pm 9.39$  centimetres and an average weight of  $61.5 \pm 9.30$  kilograms. The training conditions were the same for both teams (practice time, sports facilities, equipment and club philosophy).

## **SAMPLE**

The sample consisted of all the training tasks carried out by the two teams during the whole season (8 months), except the tasks dedicated to warming up and the tasks aimed at improving the physical fitness of the basketball players. A total of 664 statistical analysis units (tasks) were recorded, 318 designed by method A coach and 346 by method B coach.

## **VARIABLES**

The independent variable was the training process designed by each coach. The dependent variables were divided into two groups: The pedagogical variables and the external load variables. Each variable was defined by a categorical core and opening range. (Anguera, & Hernández-Mendo, 2013). The study variables were defined in the Integral System for Training Task Analysis [Sistema Integral para el Análisis de Tareas de Entrenamiento] (SIATE) Ibáñez et al., (2016). The pedagogical variables defined by Ibáñez (2008) and used in this research for analysis were: i) Game situation; ii) Game Phase; iii) Type of Content; iv) Teaching Means; v) Level of Opposition. (Table 1).

Table 1. Pedagogical variables with their opening range.

Game Situation	Game Phase	Type of Content	Teaching Means	Level of the Opposition
1 against 0	Attack	Individual Attack Technical-Tactical Behavior (IATTB)	Simple Application Exercise	Without Opposition
1 against 1	Defense	Individual Defense Technical-Tactical Behavior (IDTTB)	Complex Application Exercise	With Static Obstacle
1 against 2	Mixed	Group Attack Technical-Tactical Behavior (GATTB)	Nonspecific Simple Game	With Dynamic Obstacle
2 against 0		Group Defense Technical-Tactical Behavior (GDTTB)	Specific Simple Game	With Modulated Obstacle
2 against 1		Collective Attack Technical-Tactical Behavior (CATTB)	Nonspecific Complex Game	With Opposition
2 against 2		Collective Defense Technical-Tactical Behavior (CDTTB)	Specific Simple Game	
2 against 3		Individual Attack Technical-Tactical Gesture (IATTG)	Pre-Sport	
3 against 2		Individual Defense Technical-Tactical Gesture (IDTTG)	Sport	
3 against 3		Group Attack Technical-Tactical Gesture (GATTG)	Mental Practice	
4 against 3		Group Defense Technical-Tactical Gesture (GDTTG)		
4 against 4		Collective Attack Technical-Tactical Gesture (CATTG)		
5 against 0		Collective Defense Technical-Tactical Gesture (CDTTG)		
5 against 4				
5 against 5				
Combined				

The proposals in the SIATE instrument were used for the External Load Variables (Ibáñez et al., 2016); six main variables: i) Degree of opposition; ii) Density of the task; iii) Number of simultaneous performers; iv) Cognitive implication; v) Competitive Load; vi) Game Space; and two secondary ones: vii) Total Load; viii) Total load weighted per minute (Table 2).

**Table 2.** External load variables with their aperture range.

Value	Degree of Opposition	Density	% Simultaneous Performers	Competitive Load	Game Space	Cognitive Implication
1	Work without Opposition	Soft Pace	0-20%	Non-competition Activity	Free Throw	Without Relationship Activities
2	Superiority work of 3 or more athletes	Smooth and Continuous Rhythm	21-40%	Technique Gestures Competition	1/4 of Court	With Ratio of 1 colleague/opponent
3	Superiority work of athletes	Intensity with Rest	41-60%	Unaccounted Opposition Activity	1/2 of Court	With Ratio of 2 colleague/opponent
4	Superiority work of 1 athletes	Intensity Without Rest	61-80%	REduced Activity with Opposition Accounting for the Result	Court	With Ratio of 3colleague/opponent
5	Situations of numerical equality	High Intensity	81-100%	Match with all its Variants	Round trip Court	With Relationship of the whole team

Total Load is a secondary quantitative variable that is obtained from the sum of the assigned values for each of the six previous variables (1 to 5 points). Its value is a ratio scale, which ranges from 6 to 30 Load Units. The tasks scoring between 6 and 12 points was classified as having very low intensity, the tasks scoring between 13 and 18 points were classified as low intensity, those scoring between 19 and 24 points were of medium intensity, and those scoring between 25 and 30 points were high intensity tasks. In addition, the Total Load weighted by Time was used, as a secondary variable obtaining the result by weighting the Total Load of the Task with the useful time used. To calculate the Total Load variable weighted by Time, the Total Load is multiplied by the useful time of the task in seconds and the value of this product is divided by 60 (Ibáñez et al., 2016).

## INSTRUMENTS AND MATERIALS

The instruments used to carry out the analysis of the different training processes were the SIATE (Ibáñez et al., 2016) and the COQ Coach Orientation Questionnaire (Feu et al., 2007) to ascertain the self-defined profile of each coach. The material that was used to record the analysed training sessions was a record sheet and to quantify the time a Polar brand M400 stopwatch (Polar, Finland).

## STATISTICAL ANALYSIS

First, a descriptive analysis was performed to obtain the number of times each category of study variables was repeated (frequency and %). Next, an inferential analysis was carried out to find out the differences between the coaches studied. Three types of tests were carried out.

The *Chi square* ( $Chi^2$ ) and *Cramer's V* tests were performed to identify the differences between the nominal variables (Pedagogical Variables). The *Mann Whitney's U* test was performed for the ordinal variables (External Load Variables) and a *T* test for independent samples was performed (Field, 2009) for the variables Total Task Load and Total Load per Minute. Finally, the Effect Size ( $\eta^2$ ) and the Observed Power ( $\phi$ ) were calculated (Cárdenas, & Arancibia, 2014). To interpret the Observed Power, optimal values were considered ( $>.80$ ). Regarding the effect sizes, they were categorised as high ( $>.40$ ), medium ( $>.25$ ), and low ( $>.10$ ) (Cárdenas, & Arancibia, 2014).

## RESULTS

First, the self-defined profile of each coach is displayed. Coach A was characterised as being a coach with a mixed profile, in which the technological, innovative and collaborative components predominated because the values of these qualities were above the average score of the test. These results described method A coach as a trainer close to an SCA approach. The method B coach was also characterised as being a trainer with a mixed profile, with a predominant weight of traditional and critical factors because the results obtained in these qualities were above the average. These results describe the method B coach as a trainer near to the TCA approach.

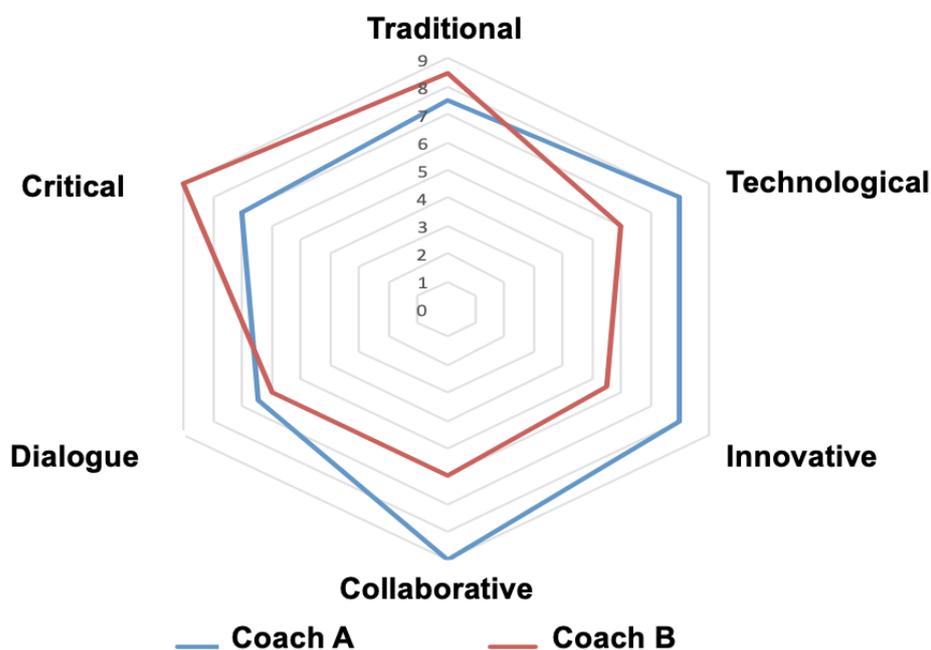


Figure 1. Graphic representation coaches' profiles.

Next, the descriptive results of the training process of both teams are shown, as well as a comparison between both methodologies and teams.

**Tabla 3.** Descriptive results of the pedagogical variables analyzed.

	Subcategories	COACH A		COACH B	
		<i>n</i>	%	<i>n</i>	%
Game Situation	1 against 0	26	8.17	121	35.00
	1 against 1	88	27.70	48	13.80
	1 against 2	7	2.20	1	0.20
	2 against 0	15	4.70	2	0.50
	2 against 1	34	10.70	16	4.60
	2 against 2	17	5.30	22	6.35
	2 against 3	2	0.60	6	1.70
	3 against 2	26	8.17	11	3.17
	3 against 3	23	7.23	21	6.00
	4 against 3	1	0.30	1	0.20
	4 against 4	9	2.80	25	7.20
	5 against 0	3	0.90	8	2.30
	5 against 4	0	0	54	15.60
	5 against 5	67	21.00	8	2.10
		Combined	0	0	1
Type of Content	IATTB	14	4.40	71	20.50
	IDTTB	15	4.70	18	5.20
	IATTG	58	18.20	86	24.80
	IDTTG	3	0.90	12	3.40
	GATTB	60	18.80	30	8.60
	GDTTB	26	8.17	12	3.40
	GATTG	1	0.30	18	5.20
	CATTB	67	21.00	75	21.60
	CDTTB	21	6.60	23	6.64
		CATTG	3	0.90	0
Game Phase	Attack	233	73.27	151	43.64
	Defense	81	25.47	86	24.85
	Mixed	4	125.00	108	31.21
Level of Opposition	Without opposition	71	22.30	143	41.32
	With Dynamic Obstacle	4	1.25	0	0
	With Modulated Obstacle	6	1.88	38	10.90
	With Opposition	237	74.52	164	47.40
Teaching Means	Simple Application Exercise	16	5.00	124	35.83
	Complex Application Exercise	3	0.90	26	7.51
	Nonspecific Simple Game	40	12.57	10	2.90
	Specific Simple Game	141	44.33	50	14.45
	Nonspecific Complex Game	1	0.30	7	2.00
	Specific Complex Game	35	11.00	60	17.34
	Pre-Sports	11	3.45	15	4.33
	Sports	67	21.00	40	11.56
	Competition	4	1.25	13	3.75

**IATTB:** Individual Attack Technical-Tactical Behavior; **IDTTB:** Individual Defense Technical-Tactical Behavior; **IATTG:** Individual Attack Technical-Tactical Gesture; **IDTTG:** Individual Defense Technical-Tactical Gesture; **GATTB:** Group Attack Technical-Tactical Behavior; **GDTTB:** Group Defense Technical-Tactical Behavior; **GATTG:** Group Attack Technical-Tactical Gesture; **CATTB:** Collective Attack Technical-Tactical Behavior; **CDTTB:** Collective Defense Technical-Tactical Behavior; **CATTG:** Collective Attack Technical-Tactical Gesture.

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Coach A mainly designed tasks with opposition in which behaviours predominate (decision making), while coach B proposed uncontextualised tasks without opposition where technique (technical executions) predominated. Both coaches mainly designed tasks focused on the attack phase of the game. Regarding the training medium, coach A based his tasks on the game (68.20%), while coach B used exercises (43.34%) with greater assiduity. Regarding the variable level of opposition to the task, there were differences between both coaches. Coach A posed tasks mostly with opposition (74.52%) and the least used variant was with dynamic obstacles (1.25%), while coach B designed tasks without opposition and tasks with opposition (41.32% and 47.4% respectively), while the variant of the dynamic obstacle did not arise at any time throughout the period analysed.

Table 4 shows the results pertaining to the external load variables proposed by each trainer.

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**Table 4.** Descriptive results of the External Load Variables

		COACH A		COACH B	
		<i>n</i>	%	<i>n</i>	%
Degree of Opposition	Work Without Opposition	62	19.49	148	42.77
	Superiority work of 3 or more athletes	30	9.43	0	0
	Superiority work of 1 athletes	66	20.75	33	9.53
	Situations of numerical equality	160	50.31	165	47.69
Density	Soft Pace	30	9.43	0	0
	Smooth and Continuous Rhythm	5	1.57	115	33.23
	Intensity with Rest	10	3.14	84	24.28
	Intensity without Rest	206	64.78	113	32.66
	High Intensity	67	21.07	33	9.53
% Simultaneous Performers	0-20%	2	0.63	0	0
	21-40%	0	0	38	10.98
	41-60%	19	5.97	44	12.71
	61-80%	21	6.60	55	15.89
	81-100%	276	86.79	208	60.11
Cognitive Implication	Without Relationship Activities	77	24.21	118	34.10
	With Ratio of 1 colleague/opponent	73	22.96	107	30.92
	With Ratio of 2 colleague/opponent	10	3.14	55	15.89
	With Ratio of 3 colleague/opponent	78	24.52	11	3.18
	With Relationship of the whole team	70	22.01	57	16.47
Competitive Load	Non-competition Activity	77	24.21	163	47.11
	Technique Gestures Competition	73	22.96	43	12.42
	Unaccounted Opposition Activity	10	3.14	1	0.29
	Red. Act. with Opp. Accoun. Result	78	24.52	75	21.68
	Match with all its Variants	70	22.01	63	18.21
Game Space	Free Throw	44	13.84	25	7.22
	1/4 of Court	35	11	48	13.87
	1/2 of Court	126	39.62	109	31.50
	Court	16	5.03	124	35.83
	Round trip Court	96	30.18	39	11.27
Total Load	Very Low Intensity (6-12)	35	11	42	12.14
	Low Intensity (13-18)	42	13.2	116	33.53
	High Intensity (19-24)	139	43.71	97	28.03
	Very High Intensity (25-30)	92	28.93	89	25.72

**Red. Act. with Opp. Accoun. Result:** Reduced Activity with Opposition Accounting for the Result

The most prevalent task for both coaches was numerical equality tasks. Regarding the intensity or density of the task, in this variable the Intensity tasks stood out for the method A team, while in the B team both the Smooth Rhythm tasks and the Intensity tasks stood out. The participation of the players through the variable Percentage Simultaneous Performers showed that both coaches scheduled their tasks primarily with maximum participation. The Cognitive Implication of the tasks designed by both coaches were those in which the player had a relationship with a teammate or opponent. The Competitive Load of the tasks of both methodological processes were mostly situations in which competition was not carried out. The space most used by coach A was midfield, while coach B mostly used the full field. Finally, the Total Load was the total value of the sum of the score for each External Load variable, categorised from

1 to 5 points. Situations with a high total load stood out in the tasks of method A team, while in the tasks of method B team those with a low competitive load predominated. These results confirm that method A team worked with more intense loads than method B team.

Table 5 shows the results of the differences between the coaches in the variables that define their training process.

**Table 5.** Differences between the coaches in the variables that define the training process.

		$\chi^2$	Sig.	$\eta^2$	$\phi$
Pedagogical Variables	Game Situation	144.567	.000 *	.598	.085
	Game Phase	34.497	.000 *	.292	1.000
	Type of Content	57.050	.456	.376	1.000
	Teaching Means	48.028	.000 *	.345	1.000
	Level of Opposition	11.832	.003 *	.171	1.000
		<i>U</i>	Sig.	$\eta^2$	$\phi$
External Load Variables	Degree of Opposition	74481.000	.000 *	.000	1.000
	Density of Task	60465.000	.000 *	.012	1.000
	Percentage Simultaneous Performers	55634.500	.000 *	.084	1.000
	Cognitive Implication	57394.500	.027 *	.076	1.000
	Game Space	63437.000	.000 *	.015	.932
	Competitive Load	61826.000	.019 *	0.34	1.000
			<i>t</i>	Sig.	$\eta^2$
	Total Load	1.408	.000 *	.001	.166
	Total Load per Minute	5.741	.031 *	.027	1.000

Nota  $\chi^2$ : Chi Squared; Sig: p value;  $\eta^2$ . Effect Size;  $\phi$ : Statistical Power; U: Mann Whitney's U; t: T test for independent samples; \* p value < .05

Significant differences were identified in the design of the tasks in all the pedagogical variables except the Type of Content. In addition, differences were identified in all the primary and secondary variables of external load, except the Degree of Opposition. The observed power was optimal (>.80) in all the variables except the Game Situation, the effect size obtained by the pedagogical variables was low.

## DISCUSSION

The objective of the present study was to analyse the training methodology of two coaches and identify the differences based on their profiles. The main results show that the self-concept that coaches have about their profile is different. In addition, there are differences in their intervention that affect the design of the tasks, but not the content they train. Both coaches, who worked in the same club, category and used the same philosophy, designed the same content, but each coach used a different methodology for the design of the tasks, which had a direct impact on the external load that the players bore during training.

Significant differences between the two coaches were identified in the

pedagogical variables Game Situation, Game Phase, Teaching Means and Level of Opposition. These differences are due to the fact that method A coach defined himself as a Collaborative, Innovative and Technological trainer, while method B coach defined himself as a Critical and Traditional trainer. In this vein, Cañadas, Ibáñez, Feu, García, & Parejo (2011) affirm that student-centred methodologies (SCA) that seek the cognitive development of the athlete favour a better distribution and use of the pedagogical variables mentioned above. These differences are mainly due to the fact that method A coach designed tasks contextualised with the game and competition, while method B coach designed analytical tasks focused on techniques, sometimes unopposed. These differences meant that some players experienced situations similar to those they would find in competition and learned how to solve them, while the others would have learned less and not aspects similar to what they would find in competition.

In the Game Situation variable, the method A coach designed the tasks with a greater variability of game situations, causing greater training variety, while the method B coach proposed tasks with fewer variants regarding the grouping of the players. In this line of thought, Ortega, Cárdenas, Sainz de Baranda and Palao (2006) confirm that training must be characterised by having great variability with the intention of being able to reproduce the situations that players face during competition, causing greater knowledge and cognitive baggage for the athlete. Coinciding with the literature, González-Espinosa, Feu, García-Rubio, Antúnez and García-Santos (2017) affirmed the importance of providing the athlete with a broad background that brings greater knowledge to solve different game situations. In addition, this knowledge must be acquired by the athlete by being confronted in each session with novel situations that make them maintain motivation and learning (González-Espinosa, Ibáñez, Feu, & Galatti, 2017). For this reason, the design of tasks must be varied in order to provoke better learning in the training athlete by making them face the largest number of different situations that may be found in competition so that they know how to solve them correctly.

In the Game Phase variable, although both coaches prioritised teaching tasks for the attack phase, the method A coach also designed tasks for the defence phase, while for the method B coach the second most frequently chosen option was the Mixed phase. Ibáñez (2008) affirmed that the evolution that the tasks must follow is an undulating design in which the phases with the purpose of attack and those with the purpose of defence alternate, with similar results for both phases at the end of the season. In contrast to the aforementioned, Mancha-Triguero, García-Ceberino, Antúnez and García-Rubio (2018) stated that in training categories and in the early stages, sometimes the attack phase is prioritised over defence since it is more motivating and fun for the athlete. Regarding the results obtained in this research, the differences found may be due to the fact that, although both coaches mainly designed tasks for the attack phase, coach A also designed tasks for the defence phase in order to improve the integral process of the players, while coach B, prioritised the attack phase over defence, and this design may affect the training process of their players, although as defence aspects are lacking, the training was not as complete as that of coach A.

Regarding the type of content and the Teaching Means of the task, coach A designed tasks with the aim of improving tactical-technical behaviours through simple games (specific and nonspecific), while coach B designed tasks to work mainly technical-tactical gestures through application exercises (simple and complex). Cañadas et al., (2010) carried out an analysis of the use of these variables based on the methodology used, defining that a greater use of games and technical-tactical behaviours in training, positions the trainer close to SCA models, while the predominant use of application exercises in order to improve technical-tactical gestures, positions the coach close to TCA models. Along these lines, Cañadas et al., (2011) stated that the analysis of these variables is very representative of the positioning of the coaches and what methodological process they implement. These differences are directly related to the model used. The SCA model (method A coach) designs contextualised tasks and takes the reference of individual improvement and competition, while the TCA (method B coach) model performs analytical tasks decontextualised from the competition itself.

Finally, regarding the Content Type variable, there were no significant differences between the two coaches. Cañadas et al., (2010) confirmed that training teams that are at the same stage and level usually have similar content programming. This is because as both teams are in the same category, club and level, the training methodology designed by both coaches is similar. In this case, the content to be worked on in the sessions was not altered depending on the coach's model. These results coincide with those existing in the literature and are positive, since they are based on providing the player with the greatest number of different situations (learnings) that can be faced during the competition and that are marked by the sports structure.

Although the analysis of training tasks with systematic observation instruments is not a common practice today, they show relevant information about the training method that can be used as feedback for the coach. The results show that coach A is nearer to the SCA methodology (Cañadas et al., 2010; Hastie and Mesquita 2016), while coach B is nearer to the TCA methodology (Hastie, & Mesquita, 2016). The coach nearer to the SCA methodology performs all the contextualised tasks taking into account the game factors (field, rules, basket, teammates and opponents), while the coach nearer to the TCA performs tasks that are sometimes decontextualised and designed with the purpose of improving sports techniques through analytical and isolated exercises. In line with the models analysed, González-Espinosa, Ibáñez et al, (2017) determined that the SCA methodology favours and facilitates learning in athletes who practise invasion sports such as basketball. In addition, they defined different variables and showed significant differences between learning by the SCA and TCA method in different areas such as in pedagogical, physical and motivational aspects. Both coaches designed unopposed individual tasks (1 against 0 game situations) aimed at improving shooting technique (field shots and free shots) (González-Espinosa et al., 2018).

Regarding the external load variables, there were significant differences between both coaches in all the variables analysed. These differences were due to the design and organisation of the task. Although the content was the

same, the design of the task was different and affected the use and number of executions that each player performed: the external task load. That is, the manifestation of the work done by the players was higher when tasks designed with characteristics of the SCA methodology were used. In this vein, González-Espinosa et al. (2018) confirmed that the methodology focused on the athlete or student causes a greater demand of the analysed variables than the methodology focused on the coach or teacher. These differences are due to the fact that the SCA methodology is characterised by the design of more complex tasks, in contrast to the TCA methodology that mainly designs tasks focused on technical aspects, sometimes decontextualised.

In the variables Density of the Task and Number of Simultaneous Performers, Alarcón, Cárdenas and Ureña (2008) considered that the SCA method is characterised by having a higher density with a shorter waiting time between executions, linking a greater number of actions without waiting time in which the players work simultaneously. While in models near to the TCA, the tasks tend to be characterised by having a longer waiting time between executions than the SCA method and not all the participants work simultaneously causing fewer executions of the task. This difference in the number of executions causes the athlete to experience more situations and internalise the objective of the task, which may help to foster better assimilation (González-Espinosa et al., 2018; González-Espinosa et al., 2019). In this line of thought, coach A programmed twice as many tasks classified as intensity or high intensity than coach B. In addition, regarding the number of simultaneous performers, coach A designed his tasks mainly with maximum participation, while coach B designed his tasks mostly with maximum participation, he also used the rest of the variants with greater assiduity. Alarcón et al., (2008) y González-Espinosa, Ibáñez et al., (2017) specified that the SCA method is characterized by having a density with less waiting time between executions, linking a greater number of actions without waiting times in which the executors work simultaneously, while in method near to the TCA, the tasks tend to have a longer waiting time between executions than the SCA methodology and not all the executors work simultaneously, causing fewer executions of the task.

Finally, there are other variables linked to those mentioned in this paragraph, Cognitive Implication and Competitive Load are affected by the pedagogical variables. The models nearer to the SCA are characterised by numerical equality and tasks with a defender in which a challenge similar to the one that the player may encounter in competition is set, while the TCA models tend to opt for tasks that are sometimes decontextualised, without a defender or in numerical superiority causing less motivation for the player and the transfer of which is further away from the competition itself (Alarcón et al., 2008). These differences in the design of the task directly affect the cognitive aspect of the athlete so that, in situations of competition at maximum intensity and with numerical equality, the athlete trained under the SCA methodology obtains a better response and a faster adaptation to the situation faced (González-Espinosa et al., 2018).

Regarding the external load variables of the training process, there should be no differences in terms of the physiological variables, since the teams are of the

same category and level. In this case, the external load was evaluated through the subjective scale of the SIATE (Ibáñez et al., 2016), which has a direct relationship, in part, with the values obtained in the pedagogical variables, since, the greater the game size or number of players, the higher the subjective external load. In contrast to this idea, Halouani, Chtourou, Gabbett, Chaouachi and Chamari (2014) stated that some modifications may be due to physiological adaptations, since they demonstrated in soccer that the 3x3 was of greater intensity than the 5x5 option. In line with the previous authors, Hill-Haas, Coutts, Rowsell and Dawson (2009) demonstrated that small-sided games situations with fewer players and less space cause a higher heart rate than game situations with a greater number of components. In basketball, this trend does not exist. Reina, Mancha-Triguero, García-Santos, García-Rubio and Ibáñez (2019) confirmed that there is a relationship between the quantification of the load analysed through the subjective instrument (SIATE), internal load (Heart Rate) and External load (Player Load). Therefore, the results obtained in this study are highly valid and reliable without the need for high economic costs. The intervention of coach A, with greater experience and academic and federative training, allowed him to design tasks that increased the participation of his players and, by extension, the training load.

Finally, regarding the Total Load as the variable that is weighted by the work time (Total Load per Minute), there were significant differences in the work of both coaches. Related to these variables, Mancha, Ibáñez, Reina and Antúnez (2017) identified the existence of significant differences in the test of aerobic capacity and lactic anaerobic capacity between teams of the same level and category subjected to training processes under different methodologies. The team trained under the SCA method obtained better results in their physical fitness than the team trained with a TCA method. These results coincide with those presented in this study in which the SCA trained team supported a higher training load than the TCA team. This may be due to the quality of the design of the tasks and the progression of the training, in which coach A had greater experience, training and creativity than coach B, and may be the trigger for such differences regarding the training processes of both teams.

## CONCLUSIONS

Teams from the same club and formative category must train the same contents. The intervention of the coaches to develop these contents will condition the learning of the players. The coach with a technological, innovative and collaborative profile designed tasks more positioned in SCA methodologies (method A coach), with more simultaneous participation and the presence of opponents. While the trainer with a traditional and critical profile was positioned in more TCA methodologies (method B coach), with the repetition of technical gestures without the presence of an opponent.

The training processes based on more active and participatory methodologies on the part of the player cause higher training loads, establishing a relationship between how they train and the load that the players bear. For this reason, how you train is more important than what you train, since it causes athletes to face a greater demand for physical activity, which is very important in training stages.

There are references to works that use the same instrument. These works open a possible line for future research in the field of training or the analysis of the coach with scant resources in a valid, reliable and ecological way, regardless of the selected sport.

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