





A Didactic Training Alternative for Losing Markers in Junior Handball Players

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ABSTRACT

Introduction: One of the tactical factors in handball is to try to gain free space during the game, facilitating the evolution of plays, or keeping ball possession.

Aim: To design a training alternative didactics to lose the markers in junior handball players in the municipality of Vertientes.

Materials and methods: the population was made of handball players of the two sexes in the municipality of Vertientes. The theoretical methods used relied on logical thinking, whereas the empirical methods included observation and survey, as well as mathematical statistics to determine the empirical distributions of frequency.

Results: A didactic alternative was designed, which complements and optimizes the traditional methods and procedures of losing the markers, based on the relationship between the structure of concentric circles of content, the principles, and tactical problems to be considered when attacking, as well as the pedagogical principles.

Conclusions: The users considered that the proposal improves the loss of markers, and can be implemented during player initiation.

Keywords: alternative, didactics, training, losing the markers, handball





INTRODUCTION

In the late 1990s, interest in the analysis of strategic, technical, and tactical elements of handball evidenced an increase, which added to previous rigorous studies conducted, according to Contreras Alfonso, P.A, Cervera Ramírez, O.J, and Lanza Bravo, A.C. (2021).

The internal logic of handball is influenced by cooperation and opposition among players. The players aim to have constant possession of the ball, a simultaneous dispute in common spaces, trying to score a goal or keep the opponent from scoring one, according to Pombo Menezes, R, Longarela Pérez, B, and Rafaela Galatti, L. (2020).

Because of the constant interaction between partners and opponents, both trying to meet their objectives, the settings are tremendously changing, as stated by Flores-Rodríguez, J., & Anguera, M. T. (2018).

To assist coaches in optimizing the performance of players and teams, it is necessary to have a broader understanding of the game interactions. Not only the isolated data about certain conducts (frequency and efficacy) is needed, it is also critical to study the context in which it is produced with an analysis of the circumstances that act as antecedents (partner and opponent movements, conditions of the court, etc.), and consequently, a thorough comprehension of team sport behaviors could be achieved, as reported by Flores-Rodríguez, J., & Anguera, M. T. (2018).

The teaching-learning of sports games is long-term, and it comprises several elements (technical-tactical, and physical fitness), it demands strategies so that players can develop slowly (Antón García, 1990; Ehret, Späte, Schubert, and Roth, 2002). Throughout this process, there is an increase in the demands of aspects such as physical preparation and the player specialization levels, as they approach adulthood (Pombo Menezes, R, Longarela Pérez, B, and Rafaela Galatti, L. (2020).

Today's teaching-learning plays a critical role in the utilization of the so-called non-linear pedagogy of sports games, like handball. It can produce a better outcome during the training of certain skills in team sports than the ones achieved through conductist and/or learning theories (Roberts *et al.*, 2019); cited by Flores-Rodríguez, J., & Ramírez-Macías, G. (2021).

In non-linear pedagogy, learning is considered a self-organizational process that emerges from the interaction of the player with the task; as players perform, they create new conduct patterns or modify the already existing ones to overcome certain limitations (constraints) (Balagué *et al.*, 2014), cited by Flores-Rodríguez, J., & Ramírez-Macías, G. (2021).





This study highlights that type of pedagogy in the offense technical-tactical actions during the attack, particularly the loss of markers.

The individual tactical intentions of a player on the attack include: being capable of playing, becoming a participatory and active player, letting the partners play, overtaking the opponents, searching for goal opportunities, and creating spaces. Among the individual tactical means to achieve it are the loss of markers, running to free spaces, passing the ball, and the moment of passing, and feints (Bana, Späte, Lund, Strub, and Khalifa, n/a).

The main advantage achieved by the team that loses the marker is the number of passing lines that the players will have each time. If most players try to always be free from marks, they will be creating the fundamentals for play evolution, or to keep the possession of the ball. This behavior will also help break the other team's defense, since it will have more difficulties contrasting the game, with an ensued defensive disorganization (YouCoach, 2018). This fundamental behavior requires the proper treatment along the technical-tactical training or the teaching-learning process of handball.

Finding a free space in the game, as a basic tactical capacity to play handball, is also a tactical skill; however, the related objectives are not oriented in the teaching-learning process. The necessary methods and procedures are not explained, even when the program requires this objective to accomplish through staged learning. No methodological indication that guides the teaching-learning process of losing the markers was found in the literature.

The review of normative handball documents revealed that the loss of markers is used to occupy free spaces and for the pass, as technical capacities developed by the players through the learning process. The documents also suggest exercise models, but no game model that guides coaches to develop the technical-tactical preparation, particularly finding a free space in the game.

Moreover, in the context of the technological demands of the province of Camagüey, the technical-tactical actions of players associated with losing the markers in junior categories have been regarded as a shortcoming.

In the provincial seminars of the last three school years, the commissioner of handball referred to the work with athletes that participate in the provincial competitions, including those who start the School for Sports Initiation. He mentioned the shortcomings observed in the players in terms of the domain of technical-tactical skills, stressing the loss of markers with or without the ball, a difficulty that hinders the technical-tactical development in the game.

Considering the results linked to player loss of markers during the provincial competition games, the athletes of Vertientes have shown difficulties in the last





three courses, especially in direction changes without the ball, at the moment when losing the markers is performed, the proximity of the defensive player when the attacker finds a free space, etc.

The literature shows little evidence of handball team training processes. However, the references to the study of amateur team training or during the initial stages, are even less evident. It is necessary to broaden the scientific knowledge at these competitive levels to provide evidence that helps improve handball training, by improving coach intervention, and by extension, player formation (Mancha-Triguero, D, Baquero, B, Ibáñez, S.J, and Antúnez, A., 2022).

The systemic-structural-functional method will be used to determine the components and structure of the alternative, coinciding with Moya Bell, Y., Sánchez Ramírez, L., & Bertot Ortega, L. (2021). Regarding the components and structure of a didactic alternative, this study suggests the one described in the research. Upon the design of the alternative, the users can try it.

The process was conducted according to Fleitas *et al.*, (2013), cited by Aguilar, (2019). For the utilization of the procedure, the indications suggested by Cadierno and Cadierno (2010), cited by Aguilar, (2019), were included. It assessed the following variables: impact, functionality, and opportunity.

Hence, this study aims to design a didactic training alternative for losing the markers in junior handball players in the municipality of Vertientes.

MATERIALS AND METHODS

The research was split into two stages: one for the design of the didactic alternative, and another to assess the users of the didactic alternative.

The stage was conducted in the 2020-2021 academic year. The utilization of the analytical-synthetic method helped break down the object to recognize the multiple relationships and components separately; then they were integrated. The documentary review was used to reveal the relationships and general characteristics of the elements that take place in the technical-tactical training, especially with losing the markers; it also revealed the training trend of this age category in Cuba, compared to the international tendencies. All of the above was included in the proposal.

The survey was used to interview the users. Who assessed the expected effectiveness of the didactic alternative.

This study assumes that the users are the coaches based in the municipality of Vertientes, the technical head, and the commissioner of this sport in the province of Camagüey.

The Chanlat matrix was included in the study to perform the evaluation, as cited by





Aguilar, (2019). The variables were analyzed according to a 0-10 score. Zero was the lowest value, whereas, 10 was the maximum value. The users had access to the survey so they could assess the items, where:

Impact (I): Contribution to the didactic alternative.

Functionality (F): Acceptance, viability, and feasibility.

Opportunity (O): Requirements and needs.

Information processing was done by determining each variable's means and the item grouping variable means (I, F, O). Then the formula was used to evaluate the effectiveness of the didactic alternative. Expected effectiveness of the didactic alternative (EESE)= $I \times F \times O / 100$.

The following parameters were considered:

If $EESE > 8$, then it is considered strongly expected effectiveness.

If $5 \leq EESE \leq 8$, then it is considered a medium expected effectiveness.

If $EESE < 5$, then it is considered a weak expected effectiveness.

RESULTS AND DISCUSSION

The teaching-learning process of the 11-12 category is a complex pedagogical process, which is oriented simultaneously, though having different intentionalities toward the technical, tactical, theoretical, psychological, and physical capacity formation. The technical-tactical teaching-learning process is characterized by the dialectic interaction of the technical, physical, theoretical, and physiological components that lead to satisfactory competitive results and integrated athlete education. The skills to be acquired through didactic technical-tactical treatment were conceived in the current literature from two theoretical standpoints: technical-tactical skills and tactical skills (Moya Bell, Y., Sánchez Ramírez, L., & Bertot Ortega, L., (2021).

The didactic alternative suggested to train loss of markers in junior handball players in the municipality of Vertientes, Camaguey, comprises the theoretical and methodological considerations expressed by Moya Bell, Y., Sánchez Ramírez, L., & Bertot Ortega, L., (2021), regarding the components and structure of a didactic alternative. The above rationale leads to the new alternative below.

Purpose: to optimize losing the markers using games to produce a technical-tactical development so that the players can use spatial advantages to break in, unbalance, or minimize the defense throughout the game.

Phases of the didactic training alternative for losing the markers

The didactic alternative comprises these phases: player characterization, the conception of loss of markers training, control and evaluation, and guidelines for implementation. The phases will be explained through their actions and procedures that help accomplish the aims stated.





First phase: Player characterization.

This phase is intended to help know the player that joins the team for the first time and to corroborate the preparation of the previous team members. Therefore, the coach conducts a comprehensive screening (to determine the intellectual attributes and behavior at school; to determine the characteristics of the athlete's surroundings; to determine each player's free space domain), so that they have the necessary elements to plan the training process, thus enhancing the child's strengths, and using all the resources that help smoothen the road in the least possible time.

Second phase: Finding a free space training conception.

The conception of loss of marker training stems from the children's characterization results. Accordingly, the coach must conceive training depending on the potentialities and weaknesses of players. The content and ways used to implement it demand player engagement in learning, through a more relevant role. To achieve that, the coach must conceive training as an active and interactive space in which they are the orienting guides and mediators of knowledge.

Coaches must conceive training through ways that enable self-determination, the assessment of game situations, skills, creativity, partner and opponent relationships, gradually.

The above can be explained by the systematic practice of a sports discipline, which is distinguished by causing changes in the individual's environment. A new system of physical activity to which the body was not previously adapted begins. Given this new stimulus, the body tries to adapt using the whole complex of systems, including the central nervous system, and the muscular system. The interaction among the responses of these systems sets the efficacy of the body's response as a whole (Pérez Martínez, I., Martínez García, M., & Quintana Díaz, A., (2021).

The process conception comprises the following aspects: Design of objectives in the training program related to losing the markers. The conception of training contents. Accuracy of the methods used in training. The conception of the technical-tactical task used in the training. The conception of the task assimilation evaluation.

Third phase: Loss of marker training.

In this phase, the critical role of players mediated by the coach who is in charge of checking task completion is significant.

This phase aims to use motor games to perform these tasks. The progression of teaching-learning is essential since it simulates competition.

This phase implements the conceptions of the previous phase. Then the main focus should be on the games that will be introduced to fulfill the expected results.





Game conception relies on the confirmation of results, as the coach uses reduced training situations, and that the player group influences the rest of the variables that define a training task. Then a stable training task structure is identified, depending on the type of situations (Mancha-Triguero, D, Baquero, B, Ibáñez, S.J, and Antúnez, A., 2022).

Fourth phase: Control and evaluation.

This phase permits coaches to have feedback on the player preparation process, particularly on finding free spaces, whose objective is to control and evaluate the tactical performance reached in the loss of markers, emphasizing error solution ways.

Guidelines for the implementation of the didactic alternative

- ✓ To consider the intellectual level of the children to conform the teams during the games.
- ✓ To make the teams following a balance between boys and girls having the highest technical-tactical development play against the slow achievers.
- ✓ The coach must introduce the games at some time of the lesson when the children’s attributes can be treated, especially the slow learners.
- ✓ During the organization of the games at the training facility, the more creative children should be distributed evenly to balance the teams.

The main result of the research is the didactic alternative itself, as assessed by the users (Table 1).

Table 1. Results of the Chantal matrix applied to the users

No	Variables	Weighting	Average weighting
Impact (I):			9.35
1	Contribution to total objective fulfillment	9.50	
2	Satisfaction of players’ needs	9.25	
3	Satisfaction of coaches’ needs	9.50	
4	Number of components involved	9.00	
5	Contribution to training the loss of markers	9.25	
Functionality (F)			9.30
6	Acceptance of the didactic training alternative for losing the markers in the game	9.25	
7	Resource availability for implementation	9.50	
8	Easy-to-use resource viability for proper implementation	9.25	
9	Quality of training	9.50	
10	Feasibility	9.00	
Opportunity (O)			9.25
11	Setting requirements that favor the action	9.00	
12	Need for a didactic training alternative for losing the markers in the game	9.25	
13	The urgency of a solution	9.50	
14	Expected general support	9.25	
TOTAL			9.3





As shown in Table 1, the users consider that the didactic alternative to training the loss of markers in 11-12-year-old handball players from the municipality of Vertientes contributed to the general objectives linked strongly to the tactical performance. It met the needs of players and coaches. It also entailed a large number of components, which were expressed in the evaluation produced (strong). They consider that the didactic alternative contributes to increasing the technical-tactical knowledge of players.

The users consider that the didactic alternative may have a strong impact on the training of the loss of markers in 11-12-year-old handball goalkeepers from the municipality of Vertientes.

Concerning functionality, the users demonstrated a strong acceptance of the didactic alternative. Moreover, they considered that there is a strong availability of resources for implementation. They hold the opinion that there is strong viability of easy-to-use resources for proper implementation. The quality of the training process was evaluated as strong. In terms of feasibility, the score was high, indicating its strength. As shown in Table 1, the users consider that the alternative preparation for finding free spaces during the game can be functional.

Concerning the environment in which the alternative will be implemented, the responses were favorable to the implementation. Furthermore, they think that the didactic alternative suggested constitutes a need to favor the tactical development of players, since finding a free space in the game is an essential feature to play handball. The above is related to the outcome from the variable urgency, as it demonstrated the critical need to address the problem studied. There was consensus on the possible general support for the alternative.

In a few words, the three variables (impact, feasibility, opportunity) were evaluated by the users with strong qualifications; hence, the general assessment of the didactic alternative to training the loss of markers was considered strong and was accepted by the users. It may consider the need of implementing this didactic alternative for evaluation in practice.

CONCLUSIONS

The theoretical-methodological rationale permits justifying that during the preparation in handball, techniques and tactics must be treated as a dialectic unit, weighting on the tactical action because of game uncertainties. Training must be conducted from a model for integrated technical-tactical teaching, where the game is the method by excellence since it creates similar conditions to competitive activity.





A didactic alternative was designed, which complements and optimizes the traditional methods and procedures to find free spaces during the game, based on the relationship between the structure of concentric circles of content, the principles, and tactical problems to be considered when attacking, as well as the pedagogical principles.

The users considered that the didactic training alternative is adequate for losing the markers in the players of the municipality of Vertientes.

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