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**Original article**

## **Methodology for the improvement of hook blows, in the pioneer category boxers**

### **Metodología para el mejoramiento de los golpes en gancho, en los boxeadores categoría pioneril**

### **Metodologia para a melhoria dos golpes de gancho, na categoria dos boxeadores pioneiros**

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## **ABSTRACT**

In boxing, precise actions are required in a very short period of time because, to the extent that the technical action in the attacks is faster, it makes it impossible to defend and counterattack efficiently during the fight. The objective of this work is to improve the technical preparation process in boxing from sports training, with emphasis on the execution of hook blows in the pioneer category boxers who train in the "Giraldo Córdova Cardín" boxing gym in Pinar del Río. It was based on the diagnosis of the state of this technical element, in the sample of ten athletes, in which the observation was applied to 24 training sessions, as well as an interview with the four boxing trainers who work with this category in that gym. A series of weaknesses were found when working with this technique in the training unit. As a final result, in order to make possible the correction of the existing deficiencies, a methodology containing a cognitive and an instrumental apparatus is implemented, methodological from the exercises that are presented and demonstrated to the coaches and the results in the competitions of the cycle 2019-2020 that show the quota of gain for the coaches and athletes.

**Keywords:** Boxing; Technical preparation; Hook shots; Training; Improvement.



## RESUMEN

En el boxeo se requieren acciones precisas en un período muy corto de tiempo porque, en la medida que sea más rápido el accionar técnico en los ataques, imposibilita al contrario defenderse y contraatacar de manera eficiente durante el combate. Mejorar el proceso de preparación técnica en el boxeo desde el entrenamiento deportivo, con énfasis en la ejecución de los golpes en gancho en los boxeadores de la categoría pioneril que entrenan en el Gimnasio de boxeo "Giraldo Córdova Cardín" de Pinar del Río, es el objetivo de este trabajo. Se partió del diagnóstico del estado en que se encuentra este elemento técnico, en la muestra de diez atletas, en el que se aplicó la observación a 24 sesiones de entrenamiento, así como una entrevista a los cuatro entrenadores de boxeo que trabajan con esta categoría en dicho gimnasio. Se constataron una serie de debilidades al realizar el trabajo con la citada técnica en la unidad de entrenamiento. Como resultado final, a fin de posibilitar la corrección de las deficiencias existentes, se implementa una metodología contentiva de un aparato cognitivo y uno instrumental, metodológico desde los ejercicios que se les presentan y demuestran a los entrenadores y los resultados en las competencias del ciclo 2019-2020 que muestran la cuota de ganancia para los entrenadores y atletas.

**Palabras clave:** Boxeo; Preparación técnica; Golpes en gancho; Entrenamiento; Mejoramiento.

## RESUMO

No boxe, são necessárias ações precisas num período de tempo muito curto porque, na medida em que a ação técnica nos ataques é mais rápida, torna impossível defender e contra-atacar eficazmente durante a luta. O objectivo deste trabalho é melhorar o processo de preparação técnica no boxe a partir do treino desportivo, com destaque para a execução dos golpes de gancho nos boxeadores da categoria pioneira que treinam no ginásio de boxe "Giraldo Córdova Cardín" em Pinar del Río. Baseou-se no diagnóstico do estado deste elemento técnico, na amostra de dez atletas, na qual a observação foi aplicada a 24 sessões de treino, bem como numa entrevista aos quatro treinadores de boxe que trabalham com esta categoria naquele ginásio. Foi encontrada uma série de pontos fracos quando se trabalhou com esta técnica na unidade de formação. Como resultado final, a fim de tornar possível a correção das deficiências existentes, é implementada uma metodologia contendo um aparelho cognitivo e instrumental, metodológico a partir dos exercícios que são apresentados e demonstrados aos treinadores e os resultados nas competições do ciclo 2019-2020 que mostram a quota de ganho para os treinadores e atletas.

**Palavras-chave:** Boxe; Preparação técnica; Tiros de gancho; Formação; Aperfeiçoamento.

## INTRODUCTION

Boxing is as old as the emergence of man, the origin of the so-called pugilato is lost in time (Alfonso, 2007). It could be assured that men have been fighting with their fists since the day they began to live in community. This rudimentary form of defense, together with stones and hands to face diverse dangers, arose to make its way through the millennia that separated its condition of savage from the period in which primitive civilizations arose.



Greek philosophers such as Aristotle, Aristophanes and Plutarch appreciated in this sport virtues in the physical preparation of athletes and in the spirit of struggle a very valuable volitional quality in the formation of man (Alfonso, 1988).

This sport has had a vertiginous and growing development in the world and Cuba is not unaware of it. The work carried out by the technicians and specialists of this virile sport, from its beginnings, has set the standard at world level, being recognized by many as a world power. Moreover, with the systematic and planned training, together with the knowledge of the great coaches of our country, the "Cuban School of Boxing" was founded, recognized nationally and internationally (Machuat, Ramos y Ramos, 2017).

The success of competitive results, to a large extent, depends on the level of development of the physical capacities of the athletes. General physical preparation requires the manifestation, not only of one capacity, but the combination of some and even many of them. This means that the improvement of one or another of the athlete's capacities is not an isolated process, but a complete increase in the body's possibilities (Hernández, Santana and Quian, 2017).

Contact sports, including boxing, are characterized by actions of high and intermittent intensity, followed by periods of lower intensity. These actions of high intensities are what will make the difference in terms of execution and outcome of the competition, based on fundamental technical actions, with combinations and counterattacks of blows, either to the face or trunk.

In addition, it requires a very special dynamism that gives it a certain degree of surprise and variability in carrying out attacks effectively.

In boxing, precise actions are required in a very short period of time because, to the extent that the technical action in the attacks is faster, it makes it impossible to defend and counterattack efficiently during the fight. But the more refined the technical gesture, the faster the actions performed by the athlete can be; hence the importance of carrying out a well-structured and defined technical-tactical work during the preparation of the athletes, from an early age, according to the technical actions to be developed later during the combat, since this component accounts for the great percentage of the victories.

The classic blows in boxing, according to their technical structure and biomechanical behavior, have a universal classification: straight blows, hook blows and cross blows. Although for their teaching and improvement, different names can be used in different countries.

Regularly, after the fighter's stop or guard position, the first blows taught are straight blows, then hooks and finally cross blows. Other specialists, mainly in European countries, prefer to teach first the crusades and then the hooks, perhaps because they feel more comfortable from the methodological point of view, but the content is the same for everyone.

These straight blows, hooks and crosses, can be executed aiming at two fundamental valid planes or areas, allowed by the rules of boxing: the face and the trunk. In addition, these blows can be executed with both hands, left and right. Therefore, we have two planes where the blows can legally impact, which can be executed with the



right and left hand and, due to their technical structure, can be straight, hooks and crosses. So, we are talking about twelve (12) classic blows in boxing.

In boxing, a total mastery of logical thought is required to respond to the different actions that take place in the fight in order to be in tune with the current demands. In this sense, [Albuquerque \(2013\)](#), proposed that:

"Combat situations are so fast, complex and changing that only the athlete can stop thoroughly to assess the actions of the opponent and must execute the response action that most corresponds to the situation. That is why, during the decision-making process, the solution of tactical tasks depends largely on tactical habits and the athlete operates with the objects he perceives directly and not with the imagined ones and with those links that are given directly in the perception".

For this reason, it is agreed that the development of technical-tactical thinking in combat sports constitutes one of the research demands of these disciplines. Combat sports, due to their dynamics, require from the athlete the quick and effective solution to the different tactical problems that are presented during the combat. [García et al., \(2018\)](#).

On the other hand, the systemic approach to the boxer's training process defends that the result does not depend on the sum of the applied sciences but, above all, on the dialectic interaction that is shown between them and through the pedagogical sciences; this axiom becomes more effective ([Sagarra, 2011](#)).

Thinking is valued as the most important process for an adequate technical-tactical execution of the athlete, which links the tasks, conditions and ways of solution. It implies planning actions, based on foresight and immediate anticipation, which have an individual and collective character and their particularity depends on the type of sport ([Díaz, 2015](#)). This approach is solidified when talking about ages. Therefore, this work emphasizes the content of technical-tactical and physical preparation in the pioneer category 11-12 years.

Here the combat stop is reaffirmed from the classic position and the long and medium distance postures, displacements with the flat step to all directions, the turn to the left and right, displacements in circle and pendulum movement, simple blows and combinations of two blows in actions of attacks and counterattacks of riposte and encounter, using the straight blows, the hooks and the crossed blows, as well as combinations of these, directed to the face, to the trunk and vice versa; simple and complex defenses with hand and forearm or elbow stop, more turn to the right and left, flat step to the sides and back, against simple blows and their combinations; fights in the long and medium distances; feints with the arm in front and the leg in front and fights against boxers of other styles.

In order to achieve an early training in athletes (including 11-12 years old), it is necessary to comply with some regulations that are oriented in the subsystem of the athlete's preparation.

This pedagogical process, which is based on laws and principles and which is directed to the raise of the technical-tactical and functional possibilities of the individual, on the basis of constant morpho-functional adaptations to higher and higher levels for



many years, brings about significant structural and functional changes in the medium and long term (Domínguez, 2007).

Contemporary sport demands from the athlete a greater use of the abilities and skills, both technical and tactical, although the technique has the greatest weight to evaluate since its behavior determines the winner in the combat.

The regulation of boxing competitions in the pioneer category (11-12 years), in Cuba, was elaborated with the purpose of promoting sport participation, taking into account the reality that this sport has in the country. It is necessary to mention that the main source of these statutes was extracted from the competition regulations, ruled by the International Boxing Association (AIBA).

On the other hand, when teaching at an early age, no rules should be imposed. It is recommended to be flexible so that teaching is participatory and that technical gestures can be learned. It is recommended to teach the exercises from the easy to the difficult, without conditioning the movements that they will have to perform; this means that when it is necessary they should repeat, in a cyclic way, the exercises and, with the passage of time, develop a motricity that demonstrates the simplicity of the movement. The fundamental objective is that athletes who are starting out learn the basic fundamentals of boxing correctly.

In the training stages, when working with beginner children, the coach should keep in mind that results will be obtained in later stages and that the whole training process has to be divided into different stages according to the physical growth and age of the boxer, the development of his aptitude and the acquisition of technical skills.

When talking about the organization as a way to optimize the effectiveness of sports training, it is necessary to remember that effectiveness is determined by the achievement of objectives, that is, obtaining results and that optimization means the maximum use of all available resources in the shortest time possible and with the highest effectiveness.

Starting from the elements exposed, the present research is centered in the work with the blows in hooks during the training of the initial categories in the boxing, since due to the last changes in the form of voting, as well as the form to fight in this sport, it has been given a protagonist paper to the blows to the trunk, being the hooks the most effective at the time of directing them to this part of the body, taking care of the particularities and effectiveness in their execution during the combat, being required the development of these technical elements from the early ages.

Therefore, the objective of the research is framed in offering a methodology to facilitate the teaching in the execution of the hooks, either to the face or to the trunk, as part of the work with the boxers of the pioneer category (11-12 years old) in the "Giraldo Córdova Cardín" Gymnasium, in the province of Pinar del Río.



## **MATERIAL AND METHODS**

The research was carried out in the boxing gym "Giraldo Córdova Cardín", in the city of Pinar del Río, constituted by ten boxing athletes, pioneer category (11-12 years old) who train there, plus the four trainers of the gym, with more than five years of experience in this work and who work with these athletes.

Scientific methods of the theoretical order were used, such as historical-logical, induction-deduction and document analysis.

From the empirical order, an interview was conducted with the four coaches who work in the gym with the category studied, to know how they develop the work for teaching and mastering the hook blows in their athletes.

In turn, the observation was applied to 24 training sessions, in order to verify in practice, the work done by these coaches in relation to the work, with the hook strokes, as well as the deficiencies that are presented in it.

The data obtained were tabulated in tables made for this purpose, which were evaluated by determining the percentages.

## **RESULTS AND DISCUSSION**

The following are the results of the instruments applied as part of the previous diagnosis, which served as the basis for the methodology to be implemented.

### **Results of the observation of the training sessions**

The first indicator of the observation guide that deals with whether the objective of the ability to work with the hooks is correctly framed from the training unit, could be corroborated, in this sense, that there were deficiencies in the formulation of the hooks since, in 12 of the 24 observations made for 50 %, there were problems in the system of knowledge and the condition that was wanted to be achieved from the training unit.

The second indicator, related to the types of exercises that the athletes work on to improve the execution of the hooks, in the training units, could be corroborated in the 24 observations made that only in 8 (33 %) exercises were made to work on the hooks. It is necessary to emphasize that they always used the same exercises, lacking an adequate methodology so that the boxers could better assimilate this blow. To a certain extent, the consecutivity of the exercises was affected according to the complexity of the same.

In the third indicator, aimed at witnessing the exercises that are most used in training, it could be seen that they were the exercises from the combat stop in place and in line, in addition, on other occasions it was developed from the step in assault, but in the largest case, without partners. This could be observed in 6 of the 8 observations in which the hooks were worked for 75 %.

In the fourth indicator, aimed at observing if a differentiated treatment is carried out with the athletes who have deficiencies with the execution of the hooks blows for their correction, it could be corroborated that only in two of the 8 observations in



which this type of blows were worked, a differentiated work was carried out with some athlete, which means 25%; all of which shows that it is insufficient to carry out the differentiated work from the training unit for the correction of errors.

In the last indicator, related to the frequency with which the work on the hooks is carried out during the weeks (microcycles) of training, it was possible to observe the predominance of frequency two, when the most appropriate is three times per week. This shows that the frequency is low because the minimum of the eight observations made to the training units, it is more difficult to assimilate this technical element, although it was worked on other occasions, but in combination with straight strokes.

### **Results of the interview with the coaches**

The first question was directed to know the exercises that they do in the training sessions for the improvement of the work of the hook blows to the face and the trunk. In this sense, it was possible to corroborate that there are deficiencies in the execution of these exercises since the four trainers had different criteria: two of them (50 %), expressed that they liked to work a series of strokes to achieve the improvement of this type of blow. The other 50 % did not give a clear and precise explanation as to the use of concrete exercises to carry out an improvement of these blows during the training sessions.

The second question was directed to know if the exercises used satisfy the demands of the athletes to improve the execution of hooks to the face and trunk. The answers show contradictions since (2) coaches representing 50 % expressed that the exercises performed meet the athletes' expectations and have given them results. The rest expressed that other exercise alternatives should be sought with the objective of increasing the technical arsenal for the work since the needs of the athletes are growing and every year new goals appear to be reached.

In the third question, directed to know the importance that they give to the improvement of the hooks blows for the positive results in this category, there was a duality of answers since of the (4) trainers, 50 % consider that it is not so important since in this category they work only 50 seconds and with a good dominion of the straight blow they win the combat. The other 50 % gives a great importance to the mastery of the hooks blows since it is tributed to have positive results in the combat and, in addition, it nourishes the athlete in this category of the fundamental blows of the boxing that will serve him to have better results in the categories of superior ages.

In the fourth question, related to the frequency with which the hooks are worked to achieve their improvement, there were different criteria, divided between frequency two and three. Regarding the latter, it is argued that it is the minimum to be used to achieve a correct learning and development of the technical elements and, especially, the improvement of the hook blows, being the athlete in better conditions for the correct execution of this fundamental blow of boxing.

The fifth and last one urged to refer the exercises they use to achieve the improvement of the trunk defenses during the training unit. In the answers, deficiencies are appreciated, since they do not correctly define the exercises they develop, although they expressed that fundamentally they execute counterattacks of hooks to the face and trunk before the attacks of straight blows of the adversaries. In this case, the little use of pronations, rotations and flexions stands out.



Taking into account the insufficiencies detected in the diagnosis, it was elaborated a methodology to improve the work with the hooks' blows, in the boxers of the pioneer category of "Giraldo Cordova Cardin" Gym in Pinar del Rio, which is presented below:

The objective of the methodology: to improve the execution of hooks blows to the face and to the trunk of the boxers, pioneer category in the municipality of Pinar del Río.

The proposed stages require a set of actions that, with a systemic character, integrate the operations that must be carried out in a gradual and conscious way under the educational management of the coach with each athlete, so that a formative process is promoted, aimed at the improvement of the hooks blows with prevalence of methods that, from the training, activate the search of a better technique in their action with the opponent in the different execution contexts to reach efficient and quality results in the fights.

### **Orientation to the coaches for the teaching of the hook blows to the face and the trunk, from the training unit, during the quarter (September-November)**

From the combat stop in the place without pairs. These are always done to the voice of the teacher or to the clap:

1. Rotate the trunk in the direction of the front hand and executes hook from the front hand to the face.
2. Rotate the trunk in the direction of the back hand and hook from the back hand to the face.
3. Rotate the trunk in the direction of the front hand and hook from the front hand to the trunk
4. Rotate the trunk in the direction of the back hand and hook from the back hand to the trunk.

### **Presentation to the trainers of the exercises for the execution of the hook blows to the face and trunk, from the combat stop in the place without a partner (September-November) from the combat stop at the place in pairs**

1. Bx1: Attacks with straight from the front hand to the face and Bx2: rotates the trunk and executes the hook from the front hand to the face.
2. Bx1: Attacks with straight from the back hand to the face and Bx2: performs trunk rotation and executes the hook from the back hand to the face.
3. Bx1: Attacks straight from the front hand to the face and Bx2: rotates the trunk and executes the hook from the front hand to the trunk.
4. Bx1: Attacks straight from the back hand to the face and Bx2: rotates the trunk and executes the hook from the back hand to the trunk.

### **Presentation and demonstration to the trainers of the exercises for the execution of the hook blows to the face and trunk from the combat stop in the place in pairs. (September-November) from the pendulum movement without pairs**

1. Rotation of the trunk in the direction of the front hand and executes hook from the front hand to the face.





2. Rotation of the trunk in the direction of the back hand and hook from the back hand to the face.
3. Rotation of the trunk in the direction of the front hand and hook from the front hand to the trunk
4. Rotation of the trunk in the direction of the back hand and hook from the back hand to the trunk.

**Presentation and demonstration to the trainers of the exercises for the execution of the blows to the face and the trunk from the pendulum movement without pair (December-February)**

1. Bx1: Attacks with straight from the front hand to the face and Bx2: rotates the trunk and executes the hook from the front hand to the face.
2. Bx1: Attacks with straight from the back hand to the face and Bx2: performs trunk rotation and executes the hook from the back hand to the face.
3. Bx1: Attacks straight from the front hand to the face and Bx2: rotates the trunk and executes the hook from the front hand to the trunk.
4. Bx1: Attacks straight from the back hand to the face and Bx2: rotates the trunk and executes the hook from the back hand to the trunk.

**Presentation and demonstration to the trainers of the exercises for the execution of blows to the face and trunk from the pendulum movement in pairs (December-February)**

1. Rotation of the trunk in the direction of the front hand and execution of the hook from the front hand to the face.
2. Rotation of the trunk in the direction of the back hand and hook from the back hand to the face.
3. Rotation of the trunk in the direction of the front hand and hook from the front hand to the trunk
4. Rotation of the trunk in the direction of the back hand and hook from the back hand to the trunk.

**Presentation and demonstration to the trainers of the exercises for the execution of the hook blows to the face and the trunk from the step in assault in the place without partner (December-February)**

1. Bx1: Attacks with straight from the front hand to the face and Bx2: rotates the trunk and executes the hook from the front hand to the face.
2. Bx1: Attacks with straight from the back hand to the face and Bx2: performs trunk rotation and executes the hook from the back hand to the face.
3. Bx1: Attacks straight from the front hand to the face and Bx2: rotates the trunk and executes the hook from the front hand to the trunk.
4. Bx1: Attacks straight from the back hand to the face and Bx2: rotates the trunk and executes the hook from the back hand to the trunk.



**Presentation and demonstration to the trainers of the exercises for the execution of the hook blows to the face and to the trunk from the step in assault in the place without pair (December-February)**

1. Rotate the trunk in the direction of the forearm hand and execute the hook from the forearm hand to the face.
2. Rotation of the trunk in the direction of the back hand and hook from the back hand to the face.
3. Rotation of the trunk in the direction of the forearm and hook from the forearm to the trunk.
4. Rotation of the trunk towards the back and hook from the back to the trunk.

**Presentation and demonstration to the trainers of the exercises for the execution of hook blows to the face and trunk from the step in assault in single movements (March-May)**

1. Bx1: Attack with straight from the front hand to the face and Bx2: rotate the trunk and execute the hook from the front hand to the face.
2. Bx1: Attacks with straight from the back hand to the face and Bx2: rotates the trunk and executes the hook from the back hand to the face.
3. Bx1: Attacks straight from the front hand to the face and Bx2: rotates the trunk and hooks the front hand to the trunk.
4. Bx1: Attack straight from the back to the face and Bx2: rotate the trunk and hook from the back to the trunk.

**Presentation and demonstration to the trainers of the exercises for the execution of the defenses of the hook blows to the face and the trunk from the step in assault in movements in pairs (May-June)**

1. Rotate the trunk in the direction of the forearm and hook it from the forearm and from the back to the face.
2. Rotation of the trunk towards the back and hook from the back and front to the face.
3. Rotation of the trunk in the direction of the front hand and hook from the front hand and the back hand to the trunk.
4. Rotate the trunk towards the back and hook the back hand and the front hand to the trunk.

**Presentation and demonstration to the trainers of the exercises for the execution of the hook blows to the face and trunk from the combat stop in the single site (May-June)**

1. Bx1: Attacks with straight from the front hand to the face and Bx2: rotates the trunk and executes the hook from the front hand and the back hand to the face.
2. Bx1: Attack with straight from the back hand to the face and Bx2: rotate the trunk and execute the hook from the back hand and the front hand to the face.
3. Bx1: Attack straight from the front hand to the face and Bx2: rotate the trunk and execute the hook from the front hand and the back hand to the trunk.



4. Bx1: Attack with straight from the back hand to the face and Bx2: rotate the trunk and execute the hook from the back hand and the front hand to the trunk.

**Presentation and demonstration to the trainers of the exercises for the execution of the exercises from the hook-stop to the face and the trunk, combat on the spot in pairs (September-November)**

1. Rotate the trunk in the direction of the forearm and hook it from the forearm and from the back to the face.
2. Rotation of the trunk towards the back and hook from the back and front to the face.
3. Rotation of the trunk in the direction of the front hand and hook from the front hand and the back hand to the trunk.
4. Rotate the trunk towards the back and hook the back hand and the front hand to the trunk.

**Presentation and demonstration to the trainers of the exercises for the execution of hook blows to the face and trunk from the single pendulum movement (September-November)**

1. Bx1: Attacks with straight from the front hand to the face and Bx2: rotates the trunk and executes the hook from the front hand and the back hand to the face.
2. Bx1: Attack with straight from the back hand to the face and Bx2: rotate the trunk and execute the hook from the back hand and the front hand to the face.
3. Bx1: Attack straight from the front hand to the face and Bx2: rotate the trunk and execute the hook from the front hand and the back hand to the trunk.
4. Bx1: Attack with straight from the back hand to the face and Bx2: rotate the trunk and execute the hook from the back hand and the front hand to the trunk.

**Presentation and demonstration to the trainers of the exercises for the execution of the hook blows to the face and trunk from the pendulum movement in pairs (September-November)**

1. Rotate the trunk in the direction of the forearm and hook it from the forearm and from the back to the face.
2. Rotation of the trunk towards the back and hook from the back and front to the face.
3. Rotation of the trunk in the direction of the front hand and hook from the front hand and the back hand to the trunk.
4. Rotate the trunk towards the back and hook the back hand and the front hand to the trunk.



**Presentation and demonstration to the trainers of the exercises for the execution of the hook blows to the face and the trunk from the step in assault in the place without partner (September-November)**

1. Bx1: Attacks with straight from the front hand to the face and Bx2: rotates the trunk and executes the hook from the front hand and the back hand to the face.
2. Bx1: Attack with straight from the back hand to the face and Bx2: rotate the trunk and execute the hook from the back hand and the front hand to the face.
3. Bx1: Attack straight from the front hand to the face and Bx2: rotate the trunk and execute the hook from the front hand and the back hand to the trunk.
4. Bx1: Attack with straight from the back hand to the face and Bx2: rotate the trunk and execute the hook from the back hand and the front hand to the trunk.

**Presentation and demonstration to the trainers of the exercises for the execution of the hook blows to the face and trunk from the step in assault on the site in pairs (September-November)**

1. Rotate the trunk in the direction of the forearm and hook it from the forearm and from the back to the face.
2. Rotation of the trunk towards the back and hook from the back and front to the face.
3. Rotation of the trunk in the direction of the front hand and hook from the front hand and the back hand to the trunk.
4. Rotate the trunk towards the back and hook the back hand and the front hand to the trunk.

**Presentation and demonstration to the trainers of the exercises for the execution of the hook blows to the face and trunk from the step in assault with unpaired movements (December-February)**

1. Bx1: Attacks with straight from the front hand to the face and Bx2: rotates the trunk and executes the hook from the front hand and the back hand to the face.
2. Bx1: Attack with straight from the back hand to the face and Bx2: rotate the trunk and execute the hook from the back hand and the front hand to the face.
3. Bx1: Attack straight from the front hand to the face and Bx2: rotate the trunk and execute the hook from the front hand and the back hand to the trunk.
4. Bx1: Attack with straight from the back hand to the face and Bx2: rotate the trunk and execute the hook from the back hand and the front hand to the trunk.



## Methodological indications

1. All exercises are directed by the teacher and are executed in the boxing or clapping voice.
2. These exercises should start with the simple to the complex.
3. The exercises must be worked on in a logical order: first the hooks to the face and then to the trunk.
4. The same technical elements must be worked on, taking into account their complexity in the boxing school, combat school, and apparatus and in the shade.
5. Work must begin firstly on the spot, then from the pendulum movement, step in assault and finally in movements.
6. It is possible to work in pairs or individually, but it is recommended that it is done mostly in pairs as this is a combat sport that exists in a confrontation and is one against the other.
7. These exercises can be worked on at all stages of training, taking into account the dosage of the exercises in terms of working time and repetitions.
8. Emphasize the correct execution of the exercises with the objective of stereotyping the movements.
9. The type of exercise to be carried out in the training units will remain at the trainer's disposal, although it must follow a logical order in execution.
10. These exercises should be worked on 3 to 4 times a week, with the aim of seeking their development and assimilation.

The application of this methodology in the studied context allowed the coaches to solve the existing shortcomings from the theoretical-methodological point of view, which also allowed the gradual improvement of the technical-tactical level by the athletes, in general, and of the execution of the hook blows, in particular, emphasizing that the 1st place in the competitive event of the category will be reached.

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**Conflict of interests:**

The authors declare not to have any interest conflicts.

**Authors' contribution:**

The authors have participated in the writing of the work and analysis of the documents.



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