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**Original article**

## **Acciones técnico-tácticas para mejorar la efectividad del trabajo de la mano delante en boxeadores**

### **Technical-tactical actions to improve the effectiveness of the forward hand in boxers**

### **Ações técnico-tácticas para melhorar a eficácia do trabalho na linha da frente em boxeadores**

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#### **ABSTRACT**

Sports training is a pedagogical process aimed at achieving adequate preparation of the athlete and systematically controlling his or her evolution. Boxing as a combat sport requires precise actions in a very short period of time because if one is faster in the technical action in the attacks, it is impossible to defend and counterattack. Hence the importance of working with the forward hand to win a fight. Therefore, the objective of this study is to propose a set of technical-tactical actions to contribute to the improvement of the work with the forward hand, the face and the trunk of the first category boxers of the Provincial Boxing Academy of Pinar del Río. A sample of five coaches and ten athletes was selected; all of them belong to the first category team of the Provincial Academy of Pinar del Río. Theoretical and empirical research methods were used, such as historical-logical, analysis-synthesis, systemic-structural, document review, interview, survey, observation and descriptive statistics. The actions are based on five basic premises and three moments of the training session, according to the technique to be executed, offering general orientations, exercises for the improvement (from the boxing school, from the combat school and from the fixed and hanging apparatus) and how to carry out the control. The theoretical evaluation by specialists and a practical application of three months corroborate that the proposal was effective.

<http://podium.upr.edu.cu/index.php/podium/article/view/979>



**Keywords:** Boxing; Forward hand; Main punches; Technical elements.

## RESUMEN

El entrenamiento deportivo es un proceso pedagógico encaminado a lograr la adecuada preparación del deportista y controlar sistemáticamente su evolución. El boxeo como deporte de combate requiere de acciones precisas en un período muy corto de tiempo porque si se es más rápido en el accionar técnico en los ataques, se imposibilita al contrario a defenderse y contraatacar. De ahí la importancia del trabajo de la mano de alante para ganar un combate. Es por ello que, el objetivo de este estudio se encamina a proponer un conjunto de acciones técnico-tácticas para contribuir al perfeccionamiento del trabajo de la mano de adelante, a la cara y al tronco de los boxeadores primera categoría de la Academia Provincial de boxeo de Pinar del Río. Se seleccionó una muestra de cinco entrenadores y de diez atletas; todos pertenecientes al equipo primera categoría de la Academia Provincial de Pinar del Río. Se utilizaron métodos investigativos teóricos y empíricos como histórico-lógico, análisis-síntesis, sistémico-estructural, revisión de documentos, entrevista, encuesta, observación y la estadística descriptiva. Las acciones se fundamentan en cinco premisas básicas y tres momentos de la sesión de entrenamiento, según la técnica a ejecutar, brindándose orientaciones generales, ejercicios para el perfeccionamiento (desde la escuela de boxeo, de combate y desde los aparatos fijos y colgantes) y cómo realizar el control. La evaluación teórica por el criterio de especialistas y una aplicación práctica de tres meses corroboran que la propuesta resultó efectiva.

**Palabras clave:** Boxeo; Mano de alante; Golpes fundamentales; Elementos técnicos.

## RESUMO

O treino desportivo é um processo pedagógico que visa alcançar uma preparação adequada do atleta e controlar sistematicamente a sua evolução. O boxe como desporto de combate requer ações precisas num período de tempo muito curto porque se se é mais rápido na ação técnica nos ataques, é impossível, pelo contrário, defender e contra-atacar. Daí a importância de trabalhar lado a lado para ganhar uma luta. Portanto, o objetivo deste estudo é propor um conjunto de ações técnico-tácticas para contribuir para a melhoria do trabalho da mão da frente, do rosto e do tronco dos boxeadores da primeira categoria da Academia Provincial de Boxe de Pinar del Río. Foi selecionada uma amostra de cinco treinadores e dez atletas; todos eles pertencem à equipa da primeira categoria da Academia Provincial de Pinar del Río. Foram utilizados métodos teóricos e empíricos de investigação, tais como histórico-lógico, análise-síntese, sistémico-estrutural, revisão documental, entrevista, inquérito, observação e estatística descritiva. As ações baseiam-se em cinco premissas básicas e três momentos da sessão de treinamento, de acordo com a técnica a ser executada, fornecendo orientações gerais, exercícios de aperfeiçoamento (da escola de boxe, da escola de combate e do aparelho fixo e suspenso) e como realizar o controle. A avaliação teórica pelo critério dos especialistas e uma aplicação prática de três meses corroboram que a proposta foi eficaz.

**Palavras-chave:** Boxe; Mão frontal; Golpes fundamentais; elementos técnicos.



## INTRODUCTION

Boxing is as old as the emergence of man, the origin of the so-called pugilato is lost in time *Garcia et al.*, (2018), citing *Alfonso* (2006), refers that:

"From ancient civilizations there is evidence of the presence of this sport activity that is currently known as the art of giving and not receiving punches. Its organization as a competition arose from Greek civilization".

The success of the competitive results, to a great extent, depends on the level of development of the physical and technical-tactical capacities of the athletes, and within it, the work of the forward hand to the face and the trunk in the combats to obtain positive results.

The Cuban school of boxing promoted its scientific demonstration before the world, being certified with an unquestionable sport result, which since 1971 is awarded with the systemic character, both at national and international level. "The chain of successes that starts in the Pan-American Games of Cali, Colombia, until reaching the Olympic Games, the most demanding scenario, allowed showing the courage and driving culture of our boxers" *González and Sagarra*, (2012, p.223).

"The general physical preparation, requires the manifestation not only of a capacity, but the combination of them. This means that the improvement of one or another capacity of the athlete is not an isolated process, but a complete increase of the possibilities of the organism" *Hernández, Machuat and Ramos* (2017).

According to *Zamora* (1995), boxing is a contact sport that has as a basic characteristic the development of actions of high and intermittent continuous intensities for periods of lower intensities, the first ones make the difference as for the performance and the result of the competition; based on fundamental actions with combinations with the hand of front of explosive force expressed in the CEA (cycle stretch-shortening) and constituted in the alactic anaerobic energetic system (*Markovic et al.*, 2005; quoted by *Baz*, 2015).

"The current demands of sport like Boxing, its dynamics, the daily influence of the advances of science, technique, new rules, the improvement of the current sport results require a fundamental step as it is the improvement of the same one, as much of the level of preparation of the sportsmen, as of all the technical, tactical and methodological system of the preparation of the boxing" (*Enríquez and Toala*, 2016).

Boxing is a sport that requires precise actions in a very short period of time because as long as you are faster in the technical-tactical action in the attacks, which allows you to hit with precision and accuracy, on the contrary, it also makes it impossible to defend and counterattack efficiently during the combat. Hence the importance of working hand in hand with the face and trunk to contribute to the victory in a boxing match.



The scientific-technical development within the physical activity, in a general way and in the practice of boxing, in the particular framework as part of the dialectic development process, has brought along with it that aspects of the preparation that only a few years ago were new and were in advanced positions; now they can be considered as obsolete and it is necessary to review them and search for new alternatives that make it possible to successfully overcome the numerous obstacles in terms of achieving superior competitive results and improving the boxing technique (Poza, 2017).

In general, in Cuban boxing, the trainer is seen as a "facilitator" and the link between knowledge and the boxers, to achieve a process of interaction based on the initiative and eagerness to know of his or her students; making this process a constant, a cycle where he or she can also individualize education in some way (Zamora, 2017).

Obviously, the development of sport-specific skills plays a key role in the positive outcome of a combat, since more than 75 % of victory depends on them. Hence the importance of working with the forward hand to the face and the trunk to complement the technical work of the boxers. An efficient work of this technical element is essential to lead the combat and to contribute to a successful attack that favors the success in the combat.

The prestige achieved in the years of Cuban boxing is mainly due to the mastery of the technical elements experienced by the athletes. This allows a more comprehensive analysis of the phenomenon to be researched and of which are their real pretensions, since from here, it is possible to make assessments that allow reaching conclusions about which is the real preparation level that Cuban boxers have regarding the domain of straight punches to the face and to the trunk (Machuat *et al.*, 2017).

This research goes into everything related to the importance of the work of the forward hand to the face and trunk during the combat of the first category boxers of Pinar del Rio's provincial academy. A correct and systematic work of this technical element can be determinant in the positive results in the boxing competition. Besides, in today's world, it is more and more demanded to be precise and objective in all the actions that are made to win in competitiveness, taking into account the characteristics of each sport.

In addition, it must be mentioned that the idea of researching this aspect did not come out of nowhere, but rather it has been a systematic work on this group, since through the application of the empirical method of observation several insufficiencies came to light regarding the work of the hand in front of the face and the trunk that are detrimental to the achievement of the victory in a boxing match of the first category boxing athletes of the provincial academy "Abad Mexico Fernández" of Pinar del Río. Twenty-four observations were made to the training sessions of this boxing team to see how the work with the forward hand to the face was developed in addition to being able to witness the exercises that they executed in that sense before making the proposal of exercises. The questions that existed in this respect were verified, since several insufficiencies in the training could be detected, within the same ones they can be mentioned: little systematicity of the work with the forward hand to the face and to the trunk during the sessions of training, deficient exercises for this type of work, insufficiencies in the relation work - rest and ignorance as far as the



entailment of the special and general exercises for the development of the effectiveness of that hand.

From these results, the need to work in this sense becomes evident, so the objective is to propose a set of technical-tactical actions to contribute to the improvement of the work of the forward hand, the face and the trunk of the first category boxers of the Provincial Boxing Academy of Pinar del Río. These exercises are based on five basic premises in three moments of the training: general presentation, application of the exercises and their control. For this, the set of proposed exercises is structured according to the technique to be executed and general orientations are given; exercises for the improvement (from the boxing school, from the combat school and from the fixed and hanging apparatus) and how to perform the control.

## **MATERIAL AND METHODS**

In the present research, a population of 16 athletes was used, of which ten, representing 62.5 %, were selected as the sample, because they are the first figures in each division. The type of sampling was intentional. In addition, the five coaches who would apply the action proposal were used as other sources.

Theoretical, empirical, and mathematical-statistical methods were used within those that were found:

Logical historical: the study of the program's background and the periodization of training was based on the importance of working the straight punch with the forward hand of the boxer several times in a boxing match to be able to win, the general laws of its operation, the development of the phenomenon throughout history and its influence on the sports results obtained by the boxers.

Synthesis analysis: it was used to see the behavior of each of the parts of the training program of the work with the forward hand in the studied boxers and to integrate all the elements after having been studied the documents related to the topic and from them to come to conclusions.

Inductive-deductive: it allowed us to understand, starting from the particularities of this problem, the importance of using the forward hand to achieve the victory in a combat and starting from diverse exercises to conform a group and to put them into practice to verify their effectiveness and to arrive at determining the most effective ones.

Observation: 24 training sessions, stops and competitions were carried out to see how the work of the forward hand behaves during the combat before applying the proposal and after the three months of its application. In addition, that the variability of exercises was also taken into account for its development.

Interview: the five coaches and 10 athletes were interviewed to see how well they know or agree on working together on a decision during training sessions and how this contributes to success in the fights.



Analysis of documents: it allowed to evaluate the quality and characteristics of the preparation plans of the previous cycles and of the studied cycle, and it was emphasized the methodology for the training, which is fundamental for the work of the forward hand to the face during the training sessions.

A practical application of the proposal was made during three months, applying 24 initial and final observations to verify in a first moment if the proposed exercises were effective.

Experts' criteria: it is used with the purpose of evaluating in a theoretical way the proposal of exercises for the work of the forward hand and its importance at the time of winning a combat through the criteria exposed by 7 specialists with more than ten years of experience and with the dominion in the boxing as trainers or athletes of high performance considered like experts previously evaluated and accredited using the method Delphy that shows that the level of competition is suitable.

Statistical methods: from the descriptive statistics we used tables of frequency distribution with percentage analysis to tabulate the results of the instruments applied in the research, essentially the observations and make comparisons between the dimensions and indicators of each instrument applied.

## **RESULTS Y DISCUSSION**

The results of the observation applied to the training sessions are described below:

The first indicator that dealt with whether the formulation of the objective of skill for the performance of the work with the forward hand to the face and the trunk in the training sessions is correctly framed was able to corroborate that in this aspect there are deficiencies, since of the 24 observations made in only two of them, which represent 8%, the objective of the training session was aimed at the development of the work with the forward hand, and there were also deficiencies in the formulation of the objective, its presentation and treatment aimed at the development of skills.

The second indicator that refers to the types of exercises or actions that are carried out to achieve an effectiveness of the work with the forward hand to the face and the trunk, could be corroborated that they are very reduced since they only used the forward hand route in attack and with isolated punches, and in few occasions, they carried out a series of straight to the trunk and the face or vice versa. In addition, this work was used in counterattack against straight punches from the opponent's back hand only with a hook or cross punch to the trunk and face. This could be observed in the two occasions in which this skill was worked as a target in the training session for 100 %.

As for the exercises or actions that are most used during the training unit to achieve the effectiveness of the forward hand to the face and trunk, the execution of the forward hand straight to the face and trunk and the series of two straight to the face and trunk stand out. This was manifested in 100 % of the observations in which the work of the forward hand to the face and trunk was carried out.



The third indicator that was aimed at observing whether differentiated work is performed in the training unit to achieve effectiveness of work with the forward hand to the face and trunk with the athletes with greater difficulties was able to corroborate that in this sense there are deficiencies, since only in 50 % of the times observed was this work performed as a goal aimed at eradicating errors with athletes with deficiencies, and even the form of correction of technical faults during the training session by the coaches is very reduced.

The last indicator that dealt with the frequency with which the work is done to achieve the effectiveness of the forward hand to the face and trunk from the training unit could be corroborated that it is insufficient since only of the 24 observations were made twice and it was frequently one per microcycle, all of which shows that little importance is given to achieving the effectiveness of this skill. This was confirmed in 100 % of the observations.

The results of the interview with the trainers behaved as follows:

The first question was aimed at expressing what types of exercises or actions they performed to improve the effectiveness of the work with the forward hand to face and trunk during the training sessions, the answers given show deficiencies since three of the five trainers representing 60 % expressed that they performed it through free work with gloves with the forward hand during the combat schools. The responses given by the remaining two were imprecise and not very objective, all of which shows that on this aspect there is no clarity on how to develop this work.

The second question was that if only the exercises performed during the training sessions can improve the effectiveness of the forward hand to the face and trunk of the first category boxers, in this sense there was unanimity of criteria because 100 % of the coaches interviewed expressed that they are not enough because they must always be looking for new actions or exercises that allow us to be more objective in everything we do to get better sports and competitive results.

The third question related to the consent that the trainers have on the importance of the work of the forward hand to the face and the trunk to obtain significant results in a combat, 80% of the interviewed ones that is to say four trainers expressed that it is determining to have a dominion of the forward hand to lead the combat and to have positive offensive actions to destabilize the opposite, nevertheless the other trainer representing 20 % expressed that it has importance the work of the forward hand but that if he has dominion of the forward hand that is the one of greater power will obtain better results in the combat.

The last question was directed to know the frequency with which the work is developed with the forward hand to the face and the trunk to achieve its effectiveness; there was similarity in the emitted answers, since 100 % of the trainers expressed that there is deficiency on this aspect because very little work is done in this sense during the micro training cycles and that one or two are developed frequently in isolation and that they are sure that in that way the effectiveness that is desired cannot be achieved.

Also, there were taken into account the results obtained from the interview with the athletes who were the subject of the research, where they expressed the following criteria in this regard: The first question was directed to know if they considered



important the effectiveness of the work of the forward hand to the face and the trunk to achieve the victory in the combat, here there were two variants of answers, since 6 that represent the 60 % expressed affirmatively, because it allows him to organize better the attacks to hit them precise punches to the contrary, and the other four athletes, who represent the 40%, declared that it was not so important because the fundamental thing is to hit effective punches with the two hands to the contrary and specifically with the forward hand that is the most powerful in the punch.

The second question that was addressed to express how many times is emphasized the work of the forward hand to the face and the trunk during the training sessions to achieve the effectiveness, 100 % of the athletes agreed that it is not a systematic work, although the coaches ask to work with the forward hand but without making concrete actions for it, so that in a certain way it is left to the will of the boxer.

The third question was addressed to see if they would like to be more effective with the work of the forward hand to the face and the trunk to obtain the victory, in this sense, eight of the ten boxers interviewed expressed themselves affirmatively, what represents 80 %, they augmented the answer expressing that they could be better with the attacks since the forward hand is the one that opens the way to attack effectively, on the contrary. The other two, 20 %, said that for them it is not decisive because the fundamental thing is to hit hard with the back hand and look for effective punches.

The fourth question that was addressed to know the consent that the boxers have with respect to if they would like to have more options to improve the effectiveness of the work of the forward hand to the face and the trunk during the training sessions, it was possible to know that 100 % of the athletes responded affirmatively and proposed to develop actions or exercises during the training sessions to be more precise with the work of the forward hand, reason why it is necessary to make this work more systematic.

### **General theoretical aspects of the technical-tactical actions to improve the effectiveness of the work of the forward hand in boxers of first category in Pinar del Río**

For the preparation and implementation of the technical-tactical actions, we studied in depth the essential elements of the work of the forward hand in boxing to achieve its improvement, either in actions attacks or counterattacks to the face or trunk.

The technical-tactical actions are designed on the basis of four stages presented below:

- i. Results of a diagnosis: the existing limitations and potentialities to implement the actions are identified based on the verification of the work with the forward hand.
- ii. Presentation of the general objective: aimed at perfecting the work of the forward hand.
- iii. General and specific exercises aimed at improving the work of the forward hand.
- iv. Evaluation of the exercises, it is evaluated if the results of the boxers improved by the work of the forward hand.





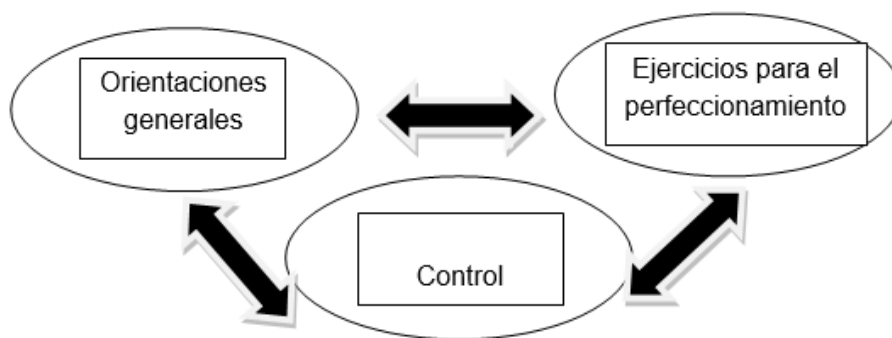
## Technical-tactical actions to improve the effectiveness of the work with the forward hand to the face and the trunk of the first category boxers

In close relation with the results obtained in the consultation of the theoretical references and the application of the interviews and the observations made to the training units, technical-tactical actions are proposed for the improvement of the work of the forward hand with the main punches of the boxing, straight, hooks and crosses.

1. The use of each of the fundamental punches taking into account the combat distance.
2. The use of the punches in an isolated way, in series and combinations to the face and to the trunk.
3. The execution of attacks and counter-attacks, either in isolation, in series or combinations of these punches.
4. The relationship between the different types of main punches.
5. The behavior of the use of each one of the punches in the conduct of the combat.
6. The use of the repetition method taking into account the characteristics and complexity of the technical work, taking into account the use of the synthetic method.

In addition, the following aspects will be taken into account when proposing the technical-tactical actions themselves (Figure 1).

1. General orientations.
2. Exercises for the improvement.
3. Control.



**Fig. 1** - Aspects to take into account for technical-tactical actions

The first action will always be directed to the general orientations concerning basic general issues that an athlete must possess in order to have a mastery of the main punches of boxing taking into account his or her characteristics and those of the opponent.

The second action should train the boxers with technical-tactical exercises that contribute to the improvement of the work of the forward hand with the main punches of boxing. Obviously, this action is more complex than the previous one, but they are



closely related to the provisions of the general guidelines (the exercises below are one way of carrying out the work, although others can be formed as the specificities of the mimes are overcome).

And as a third action is the necessary control that works as feedback of what has been achieved with the athlete regarding the work of effectiveness with the forward hand to the face and trunk during the combats

Below are examples of technical-tactical actions:

### **Isolated cross-punch**

General orientations:

The boxer for the execution of this punch must take into account the following:

1. He should conduct the combat in the long, medium or short distance, but preferably in the middle.
2. The guard must keep it up and the trunk slightly bent.
3. To possess technical dominion of the punch.
4. To possess good speed of reaction at the time of the execution of the punch.
5. To possess dominion of the distance of combat, or from the pendulum movement, the step-in assault or the displacements.
6. To possess dominion of the preparatory actions for the attack or counterattack (feints, tricks, maneuvers).
7. It should be worked on the face and trunk.

### **Exercises for the improvement**

From the boxing school:

1. All exercises or actions will be performed in pairs in place, in pendulum movement, in step in assault and in movements to all directions.
2. The performance of these exercises will be developed in an addressed form to the voice of the teacher or in a free form taking into account the characteristics of the boxer.
3. The punch should be worked first on the attacking face and then on the trunk, taking into account their logical order and complexity.
4. Then the cross-punch should be worked on in counterattacks to the face and trunk, taking into account the logical order of execution, either after the completion of the riposte defenses or at the bout.
5. At least three times a week should be worked on to achieve its perfection.

From the combat school:

1. All exercises or actions will be performed in pairs on the spot, in pendulum movement, in step in assault and in movements to all directions.
2. These exercises will be developed in a directed way, to the voice of the teacher or in a free way, taking into account the characteristics of the boxer.
3. The punches should be worked first on the face in attacks and then on the trunk, taking into account the logical order of their execution and their complexity.



4. Afterwards, the cross-punch should be worked on in counter-attacks to the face and trunk, taking into account the logical order of execution, whether after the riposte defenses are made or after the bout.
5. At least three times a week should be worked on to achieve its perfection.

From fixed or hanging apparatus:

1. All exercises or actions will be performed individually in place, in pendulum movement, in step in assault and in movements in all directions.
2. The performance of these exercises will be directed to the voice of the teacher or in a free form taking into account the characteristics of the boxer.
3. The punch should be worked first on the attacking face and then on the trunk, taking into account their logical order and complexity.
4. Then, the counter-attacking cross-punch to the face and trunk should be worked on, taking into account the logical order of execution, either after the completion of the riposte defenses or after the bout.
5. They should be worked at least 3 times per week to achieve their perfection.

Control

1. Evaluation through theoretical exams on the main aspects to be mastered for the execution of the cross-punch from the forward hand in isolation to the face and trunk.
2. Practical evaluation of the punch through free work with gloves.
3. Practical evaluation with the work with the trainer's mitts where they have to perform the essential aspects in a correct way.
4. Practical evaluation of the exercises proposed above against left and right-handed boxers.
5. Practical evaluation of the proposed exercises during sparring rounds.

### **Combinations of forward hand punches**

General orientations:

In order to execute these combinations of punches, the boxer must take into account the following:

1. He must conduct the fight on the three long, medium and short distance.
2. He must keep the guard up and the trunk slightly bent.
3. He must possess technical dominion of the punches.
4. He must possess good speed of reaction at the time of the execution of the combinations of punches.
5. He must possess dominion of the distance of combat, or from the pendulum movement, the step-in assault or the displacements.
6. He must possess mastery of the preparatory actions for the attack or counterattack (feints, tricks, maneuvers).
7. He must work on the face and trunk.
8. At least two different types of punches should be worked on without long intervals between them.
9. The combinations can be with straight-hooks, straight-cross, cross-hook, cross-hook and straight-cross, either to the head or to the trunk.



## Exercises for the improvement

### From the boxing school:

1. All exercises or actions will be performed in pairs in place, in pendulum movement, in step in assault and in movements to all directions.
2. The performance of these exercises will be directed to the voice of the teacher or free, taking into account the characteristics of the boxer.
3. The punches should be worked in combinations to the face, to the trunk or to the face and to the trunk in attack, taking into account the logical order of their execution and their complexity.
4. It should begin with combinations of two preferably straight punches and hooks to either the face or the trunk in attack.
5. Afterwards, the combinations of punches will be worked on according to the characteristics of each boxer, taking into account the logical order of execution, whether after the completion of the defense or after the bout.
6. They should be worked on at least three times a week to achieve their perfection.

### From the combat school:

1. All exercises or actions will be performed in pairs in place, in pendulum movement, in step in assault and in movements in all directions, preferably in step in assault and movements.
2. The performance of these combinations of punches will be developed in a way directed to the voice of the teacher or free taking into account the characteristics of the boxer.
3. Two punches should be worked on in each combination, first in attacks to the face and trunk, taking into account the logical order of execution and complexity of the punches.
4. To perform the actions preferably in the center of the ring.
5. Combat school assaults in which one of the boxers does not use punches trying to maneuver as much as possible and the other boxer works under freer conditions (executing punches).
6. Combat school rounds in which one of the boxers works only with the forward hand in combinations and the other boxer works with freer conditions (both arms, other types of punches, etc.).
7. Combat school rounds in which one of the box.
8. Works only with straight punches with both hands and the other boxer works only with the forward hand in combinations of punches according to the characteristics of the opponent.
9. Free rounds in which one of the boxers is required to always be in the center of the ring working with both hands and the other boxer works with two and three strikes with the forward hand either to the face or to the trunk.
10. They must work at least 3 times per week to achieve their perfection.

### From fixed or hanging apparatus:

1. All exercises or actions will be performed individually or in pairs in place, in pendulum movement, in step in assault and in movements in all directions.
2. The performance of these combinations of punches will be developed in a way directed to the voice of the teacher or free taking into account the characteristics of



the boxer.

3. The combinations of punches should be worked first on the attacking face and then on the trunk, taking into account the logical order and complexity of the punches.
4. The execution of the combinations of punches can begin from the trunk or from the head, but complying with the execution dynamics of the technical element.
5. It should be worked at least 3 times per week to achieve its improvement.

Control

1. Evaluation through theoretical exams on the main aspects to be mastered for the execution of the combinations of strikes from the forward hand to the face and the trunk, either with two or more strikes.
2. Practical evaluation of the combinations of strokes from the forward hand through free work with gloves.
3. Practical evaluation of the work of the combinations of strikes from the forward hand to the face and trunk, not the trainer's pets, where they have to perform the essential aspects in a correct way.
4. Practical evaluation of the exercises proposed above against left and right-handed boxers.
5. Practical evaluation of combinations of punches to the face and trunk with the forward hand during free work with gloves for rounds.

### **Serial hook punch**

General orientations:

The boxer for the execution of this punch must take into account the following:

1. He must conduct the fight in the medium or short distance, but preferably in the short one.
2. The guard must keep it up and the trunk flexed.
3. To possess technical dominion of the punch.
4. To possess good speed of reaction at the time of the execution of the punch.
5. Dominion of the distance of combat, or from the pendulum movement, the step-in assault or the displacements.
6. Mastery of the preparatory actions for the attack or counterattack (feints, tricks, maneuvers).
7. It must be worked on the face and trunk.
8. At least two hooks should be worked on without long intervals between them.

### **Exercises for the improvement**

From the boxing school:

1. All exercises or actions will be performed in pairs in place, in pendulum movement, in step in assault and in movements to all directions.
2. The performance of these exercises will be directed to the voice of the teacher or free, taking into account the characteristics of the boxer.
3. The punch should be worked in series, first on the face in attack, and then on the trunk, then on the face and trunk, and vice versa, taking into account their logical



order and complexity.

4. It should begin with a series of two hook punches to either the face or the trunk in attack.
5. Then, the series of two hook punches to the face and trunk will be worked on, taking into account the logical order of execution, either after the execution of the riposte defenses or after the encounter.
6. At least three times per week should be worked on to achieve their perfection.

From the combat school:

1. All exercises or actions will be performed in pairs in place, in pendulum movement, in step in assault and in movements to all directions, preferably in displacements.
2. The performance of these series of punches will be developed in a manner directed to the voice of the teacher or in a free form taking into account the characteristics of the boxer.
3. Two punches should be worked in series, first to the face in attacks and then to the trunk, taking into account the logical order of execution and complexity of the punches.
4. Then the series of two hooks should be worked on in counterattacks to the face and trunk, taking into account the logical order of execution, either after the completion of the riposte defenses or at the bout.
5. Perform the actions preferably in the center of the quadrilateral.
6. At least three times per week should be worked on to achieve their perfection.

From fixed or hanging apparatus:

1. All exercises or actions will be performed individually or in pairs in place, in pendulum movement, in step in assault and in movements in all directions.
2. The performance of these series of hook punches will be developed in a manner directed to the voice of the teacher or free, taking into account the characteristics of the boxer.
3. The series of hook punches should be worked on first to the attacking face and then to the trunk, taking into account the logical order of their execution and their complexity.
4. Then a series of hooks are worked on, first to the face and then to the trunk, taking into account the logical order of execution, either after the completion of the riposte defenses or after the bout.
5. The execution of the series of hooks can start from the trunk or from the head, but complying with the execution dynamics of the technical element.
6. At least three times a week, work must be done to improve it.

Control

1. Evaluation through theoretical tests on the main aspects to be mastered for the execution of the series of hooks from the forward hand to the face and trunk, either with two or more strokes.
2. Practical evaluation of the series of hooks from the forward hand through free work with gloves.
3. Practical evaluation of the series of hooks punches from the forward hand to the face and trunk, not the trainer's pets, where they have to perform the essential aspects in a correct way.



4. Practical evaluation of the exercises proposed above against left and right-handed boxers.
5. Practical evaluation of the series of hooks with the forward hand to the face and to the trunk during the free works with gloves for rounds.

In order to verify the theoretical feasibility of the proposal, the method of expert criteria was used. Seven professionals were selected as experts who assessed the relevance of the proposed technical-tactical actions as being very effective and complete with the content orientations of each one, the exercises and the way they should be controlled, as well as the feasibility of their implementation in the context of sports teams.

The evaluation of the results in practice is made in correspondence with the actions, starting from a partial introduction in the sport practice.

First, coaches who apply the proposal were prepared in workshops where each of the technical-tactical actions were explained with the orientations, their exercises and forms of control.

Later, they are introduced in the training units and start to execute.

The results of the observations made in the diagnosis were taken as a pre-test and the applied observations at the end of the three months as a post-test. Once this analysis was made and with the results obtained, the quantitative analysis was carried out, which involved placing each measured indicator in the following levels: low, medium and high. It is assumed that there is a low level for each indicator in the case that it is only recognized in 30 % of the observations, medium if it is recognized by 31 % and up to 70 % and high if it is recognized by 71 % or more.

In this sense, it is verified that each one of the indicators that are established to measure the level of treatment of the use of the forward hand behave, before the application of the actions in a low level, while after it, the level of preparation is high (Table 1).

**Table 1.** - Valuation of the indicators

<b>Indicators</b>	<b>Before</b>	<b>After</b>	<b>RANGES</b>
<b>Objective formulation</b>	12,5	83,3	HIGH
<b>Effective actions</b>	25	95,8	HIGH
<b>Systematic work</b>	16,7	95,8	HIGH
<b>Differentiated work for the improvement of the forward hand</b>	25	79,2	HIGH
<b>Frequency of performance</b>	16,7	87,5	ALTO

**Symbols:** Low  $\leq 3$  Mean 6 y 4 High  $>6$



The analysis carried out so far from the partial introduction of the technical-tactical actions, allows to ratify the validity of the proposal, taking into account the visible transformations in the athletes' actions with the use of the forward hand.

The implemented proposal is based on three main general orientations; exercises for improvement from the boxing school, from the combat school and from the fixed and hanging apparatus, and finally, how to perform the control.

The theoretical evaluation by the experts reflects that the proposed actions are very adequate for the improvement of the work of the forward hand in the boxers in the context of the sport combinations, which is corroborated when applying the proposal in the sport practice during three months, where visible transformations in the action of the athletes with the use of the forward hand are evidenced.

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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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