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# The improvement of anticipation skill in female youth wrestling athletes

[El perfeccionamiento de la habilidad anticipación en atletas juveniles de lucha libre sexo femenino]

[A melhoria da habilidade de antecipação em atletas juvenis de luta livre]

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## **ABSTRACT**

**Introduction**: in wrestling as a sport, all the components of preparation are present. According to its purpose, the tactical component is a determinant of performance due to the multiple demands it places on the athletes. In it, the anticipation of the opponent's actions plays a fundamental role in solving the changing situations that arise during confrontations.

Objective: the research proposed to establish a methodology to contribute to the





improvement of the anticipation skill of Granma's female youth wrestlers during the tactical preparation process.

**Methods:** a pre-experimental design study with minimal control was conducted for three years (2019-2022). The participants were chosen from the non-probabilistic intentional sampling technique, selecting fifteen wrestling coaches and ten female athletes that make up the youth enrollment of the "Pedro Batista Fonseca" Sports Initiation School (EIDE by its acronym in Spanish) in the province of Granma, Cuba.

**Results:** a methodology composed of tactical tasks, methods and procedures, recommended for their work, according to the current demands of sports wresting, was offered. With the application of this proposal, a detailed treatment was carried out from the tactical preparation to the anticipation skill, in correspondence with the female wrestlers' potentialities. This had an impact on their tactical performance, with significant improvements in their competitive actions.

**Conclusions:** with the application of tactical tasks in the training units, the study showed the achievement of high levels of solution of changing situations during the confrontations of female youth wrestlers.

**Keywords**: tactical tasks; skill, anticipation; thinking; female wrestling.

## **RESUMEN**

**Introducción**: en la lucha como deporte, están presente todos los componentes de la preparación. Según su propósito, el táctico es determinante del rendimiento por las múltiples exigencias que les plantea a las atletas. En él, la anticipación a las acciones del contrario desempeña un papel fundamental en la solución de las situaciones cambiantes que se presentan durante los enfrentamientos.

**Objetivo:** en la investigación se propuso establecer una metodología para contribuir al perfeccionamiento de la habilidad anticipación de las luchadoras juveniles de Granma durante el proceso de preparación táctica.

**Métodos:** se realizó un estudio de diseño pre-experimental con control mínimo, durante tres años (2019-2022). Los participantes se escogieron a partir de la técnica de muestreo





no probabilística intencional, seleccionando quince entrenadores de lucha y diez atletas del sexo femenino que conforman la matrícula juvenil de la Escuela de Iniciación Deportiva (Eide) "Pedro Batista Fonseca" de la provincia de Granma, en Cuba.

Resultados: se ofreció una metodología compuesta por: tareas tácticas, métodos y procedimientos, recomendados para su trabajo, acorde a las exigencias actuales de la lucha deportiva. Con la aplicación de esta propuesta se realizó un tratamiento detallado desde la preparación táctica a la habilidad anticipación, en correspondencia con las potencialidades de las luchadoras. Esto incidió en su desempeño táctico, con mejoras significativas en el accionar competitivo.

Conclusiones: con la aplicación de tareas tácticas en las unidades de entrenamiento, el estudio mostró el logro de niveles altos de solución de situaciones cambiantes durante los enfrentamientos de las luchadoras juveniles.

Palabras clave: tareas tácticas; habilidad, anticipación; pensamiento; lucha femenina.

#### **RESUMO**

**Introdução**: na luta livre como esporte, todos os componentes da preparação estão presentes. De acordo com a sua finalidade, o tático é um determinante do desempenho pelas múltiplas exigências que impõe aos atletas. Nele, a antecipação das ações do adversário desempenha um papel fundamental na resolução das situações mutáveis que surgem durante os confrontos.

**Objetivo**: a pesquisa propôs estabelecer uma metodologia que contribua para a melhoria da habilidade de antecipação dos lutadores juvenis do Granma durante o processo de preparação tática.

**Métodos**: foi realizado um estudo de desenho pré-experimental com controle mínimo durante três anos (2019-2022). Os participantes foram escolhidos através da técnica de amostragem não probabilística intencional, selecionando quinze treinadores de luta livre e dez atletas do sexo feminino que compõem a matrícula juvenil da Escola de Iniciação Desportiva "Pedro Batista Fonseca" (Eide) na província de Granma, em Cuba.





**Resultados**: foi oferecida uma metodologia composta por: tarefas táticas, métodos e procedimentos, recomendados para trabalho, de acordo com as demandas atuais da luta esportiva. Com a aplicação desta proposta foi realizado um tratamento detalhado desde a preparação tática até a habilidade de antecipação, em correspondência com o potencial dos lutadores. Isso afetou seu desempenho tático, com melhorias significativas nas ações competitivas.

**Conclusões**: com a aplicação de tarefas táticas nas unidades de treinamento, o estudo mostrou o alcance de altos níveis de solução para situações mutáveis durante os confrontos dos jovens lutadores.

Palabras clave: tareas tácticas; habilidad, anticipación; pensamiento; lucha femenina.

#### **INTRODUCTION**

Sports results in Olympic wrestling depend on multiple factors. In this sense, different studies have been carried out in order to achieve that athletes increase their performance and dominate their opponents in better conditions. There are several areas of research that have deepened in achieving such purposes.

In this order of ideas, Delgado, Gaviria, Guevara and Berdugo (2021) evaluate the nutrition of sports wrestlers during the pre-competitive, competitive and post-competitive stages in the National Games. They recommend the strategies to follow to achieve optimal values. Meanwhile, Maceo and Muñoz (2021) study the level of knowledge of wrestling coaches to assess the genetic potential in the selection of sports talents.

In the area of physical preparation, particularly the preparation of muscular strength, Noriega, González and Lanza (2020), as well as Noriega, Lanza and González (2020), propose exercises and procedures for working with weights in youth athletes. Meanwhile, Cedeño (2021) evaluate the incidence of the development of muscular strength in the technical execution in wrestlers of the school category.





Dávila (2022) focuses specifically on the teaching and learning of Olympic wrestling in the U15 category, for which they developed a program. In similar studies, González, Carreño, Gallardo, Paz and Morales (2022) diagnose the technical training process in Olympic wrestling. Others, such as Gómez and Castillejo (2021) developed a methodology for identifying talents in a sports federation.

In relation to tactics, as the purpose of this sport, it is considered a determinant component of performance. This is framed in the creative use of skills, techniques and volitional possibilities, in accordance with the characteristics of the opponent and the specific circumstance generated in combat and in the competitions of González (2017). However, according to Fernández (2020), tactics has been one of the least studied components in depth, which may be given, among other aspects, by the complexity of its treatment.

The complex nature of tactics is framed in the relationship of this component with memory, thinking and observation; in addition to perception, logical reasoning, concentration of attention, among other intellectual capacities. Therefore, the solution of tactical tasks in this sport originates from operative thinking.

In this order of ideas, it is considered that operative thinking is linked to work operations, directed towards the satisfactory solution of one or another task. On this context, anticipation of the opponent's movements plays a determining role, for which the wrestler, from the observations and perceptions in the competitive context of the combat, prepares her movements. This should occur before the course of the upcoming actions, according to the characteristics of the opponent and the complexity of the situation.

Several authors in the wrestling have addressed the tactical component of the preparation. Among these stand out, Milán and Cabrales (2016), who establish technical-tactical actions in female school wrestling of the Sports Initiation School (EIDE) of Granma; based on the need to improve the performance of the athletes. In this sense, Ibáñez, Navelo and de Armas (2023) carried out a descriptive study on the





methodological treatment of the technical-tactical preparation in school wrestlers of Villa Clara, (with the possibility of further research due to the novelty of the subject). Others, such as González, Cañedo and Rodríguez (2017), refer to the types of tactics and their use in sport wrestling, which constitute starting points for different studies.

It should be noted that in women's freestyle, tactical preparation has been reaching an extraordinary development. This occurs in response to the dedication that women offer to the growing demands imposed by the competitive scenarios. Fundamentally, on the basis of training and strengthening mental skills, which allow them to know how to execute the technical-tactical elements; since the conditions are created for their execution at the right time and effectively.

This work is subordinated to the marked intention of the formation of an intelligent athlete, with a high level of analysis, creativity, technical level and ability to solve the varied situations that arise from the dynamics of competition (Guillén and Ale 2019).

An important starting point is the definition of the anticipation skill. For Ortega, Martín and Camacho (2020), anticipation is the ability to predict what will happen when preparing to execute a tactical task. Avilés, Ruiz, Navia, Rioja & Sanz (2014) are of the opinion that the classic concept of anticipation refers to the ability of athletes to detect body cues (signals) of opponents early and predict the direction of movement.

From the perspective of the authors of the article, anticipation is considered as a mental skill, closely related to operational thinking. It is assumed as an operational skill focused on the mastery of motor action, to anticipate the movements of the opponent, which can be executed in changing conditions for the successful solution of various tactical tasks.

In the specific case of female youth wrestling athletes of the EIDE of Granma, the authors of this research found the existence of limitations in their anticipation skill. These are framed in the development of the tactical preparation process in this category; which occurs mainly in the face of the opponents' movements during the confrontations. These





results are obtained from the analysis of the background and empirical research, including observations of training sessions and competitions.

When specifying these insufficiencies, it is observed that there is a lack of systematization in the specific knowledge of tactics. This prevents a consistent approach to tactics in training and competition conditions. As a consequence, its determinant character is limited, an aspect that affects the progress of the wrestlers' tactical performance.

In addition, there are limitations in the ways and procedures for the treatment of the anticipation skill. The aspects that hinder the ways of predicting the opponent's movements and the wrestlers' resolutive capacity in terms of preparation, execution and continuation of tactical actions.

It is also noted that during the tactical preparation process there is a predominance of the use of traditional methods. This hinders the operability of thinking in the perception and analysis of the situation, mental and motor solution of tasks by the youth wrestlers.

In relation to the theoretical models reviewed that include the training of tactical preparation, limitations are also observed. These are generally limited to conceiving the realization of the variability of operative and operational thinking, of the anticipation skill, in the integration of the tactical action of the female wrestlers for combat. This occurs mainly from the dynamics of a process, which can be directed from an integral functional approach.

From the detected inadequacies, the problematic situation of the research is manifested. This consists of limitations in the ability to anticipate the opponent's movements, which is manifested in the tactical disorganization during training and competitions. Restrictions that hinder the effective performance of youth freestyle wrestlers in the solution of changing situations in the bouts. This shows a mismatch between what happens and what is desired.





This is an expression of the existing contradiction between the unstable and disarticulated treatment of the specific didactic units, present in the anticipation skill of youth wrestlers and the need for its improvement during the tactical preparation process; for the effective performance in the confrontations.

For this reason, the objective of this research is to establish a methodology that contributes to the improvement of the anticipation skill of the youth wrestlers of Granma; from the realization of the variability of operative thinking during the tactical preparation process.

#### MATERIALS AND METHODS

The present study was developed at the "Pedro Batista Fonseca" Sports Initiation School (EIDE) in the province of Granma, Cuba, between 2019 and 2022. The diagnosis of the research aimed to determine the current state of the anticipation skill during the tactical preparation of female youth wrestlers. For its realization, several methods were applied, which corroborated the existence of the problem.

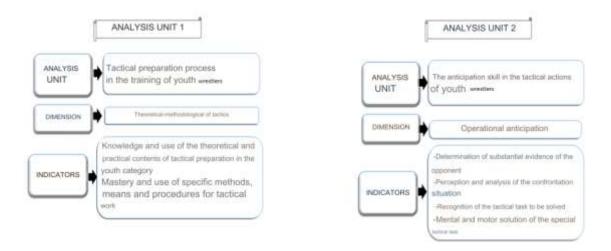
It began with the observation of 33 training sessions, at different moments of the preparation. Its purpose was to verify the theoretical and practical preparation on tactics. Likewise, the difficulties presented by the wrestling coaches, in terms of the improvement of the anticipation skill during the tactical preparation in the youth wrestlers of Granma. Surveys were applied to the 15 selected coaches and the 10 female wrestling athletes of the EIDE of Granma to verify their considerations and level of updating in relation to the treatment of the anticipation skill in the youth category.

The athlete's preparation program for wrestling was reviewed, as well as the competition reports with emphasis on the tactical summaries made, which provided important information on the reality of the subject.





Two units of analysis were taken into account during the diagnosis. Figure 1



*Fig.*1. - *Diagnosis two units of analysis* 

The evaluation of tactical actions was carried out through the indicators established in the units of analysis, based on levels, as shown below:

- High level (with independence). That is, when the wrestler keeps her tactical
  actions active during the matches without depending on the coach.
- Medium level (with relative independence or guided elaboration). When the
  wrestler is able to initiate her tactical actions during the matches, but with some
  dependence on the coach's guidance.
- Low level (no independence). When the wrestler is not able to maintain the tactical actions on her own during the confrontations and depends completely on the coach's guidance.

After assessing the main results provided by the different sources, methodological triangulation was carried out, based on the basic principle of collecting and analyzing data from different angles in order to contrast and interpret them.

For the research, 25 participants were selected using the non-probabilistic intentional sampling technique. These were distributed in six wrestling coaches from the EIDE of Granma who work with the youth category, nine wrestling coaches belonging to the





provincial capital (Bayamo) with the best results of the territory, and ten female wrestlers who make up the female youth freestyle enrollment of the reference center.

A total of 53 bouts of two matches with wrestlers from the provinces of Holguín and Guantánamo were also observed. From these results, the need for the research was based on which a methodology was established to contribute to the improvement of the anticipation skill of Granma's youth wrestlers during the tactical preparation process. Once the methodology was applied, 49 bouts were observed in two subsequent matches, whose results were evaluated with the application of Wilcoxon's non-parametric test, for which a significance level of  $\alpha$ =0,05 was chosen, where if  $\alpha$ <0,05 the difference is significant in the comparison of the data of the two moments.

The methodology was evaluated by 23 selected experts, out of 27 that were initially summoned, who gave their considerations based on five possible criteria to evaluate eight aspects of the methodology. Once the methodology was evaluated, it was applied to the reference youth wrestlers and through a pre-experiment its effectiveness and integration to the tactical action in the solution of tasks during the wrestlers' competitive performance was corroborated.

#### RESULTS AND DISCUSSION

Several methods were applied in the diagnosis carried out, which yielded the results shown below. From the observation, limitations were detected in the psychological and pedagogical phases of tactics in the training units. The surveys applied to coaches and wrestling athletes denote a lack of solidity in theoretical-practical knowledge, fundamentally to develop tactical preparation and anticipation skills in the youth category.

Likewise, the interviews revealed superficial assessments of anticipation and its importance for this sport, category and gender. In addition, methodological difficulties were observed regarding the most current fundamentals of the tactical component in





sports training and the elements that make it up. Meanwhile, the documentary review generally confirmed the limited methodological guidelines of the integral program of preparation of the athlete in relation to the tactical preparation and the skill of anticipation for the work of the female wrestling athletes in this category.

Upon analyzing the results of the diagnosis from different angles through methodological triangulation, it is agreed that:

- Coaches have limited knowledge to address the issue of improving anticipation from the tactical preparation, with the category they serve. Their work is guided by the methodological guidelines of the Athletics Training Program (PIPD by its acronym in Spanish), which they consider insufficient.
- The mastery and use of specific methods and procedures for the treatment of tactics and skills in training sessions is considered poor. There is a predominance of traditional methods, which minimize the performance of female wrestlers by reducing their creativity. All this reflects a lack of updating, according to the growing demands of such an important component.
- Inaccuracies were observed in the definition of the skill of anticipation. Fundamentally in the actions for the work and in the importance given to it for the actions during the confrontations. This deficiency limits the wrestlers' training in a conscious way.
- The basic concepts offered to the wrestlers are insufficient to allow them to integrate and put into practice their knowledge and skills in new situations in their natural context.
- There was little systematization in the treatment of the content of wrestling for the improvement of the skill of anticipation. Mainly in the methodological alternatives, which guide the athletes and allow an evaluation of their progress in the solution of changing situations.
- Opportunities are missed due to the lack of foresight of the opponents' actions at different moments of the fights. This limitation led to several defeats in the matches.





Methodological resources are limited regarding the most current fundamentals
on the anticipation skill during tactical preparation. In the same way, the
exercises that can be used, their dosage, control and evaluation, when working
in a general way the tactical preparation implicitly with the technical component.

Therefore, it is inferred the need to address this professional problem of coaches with the establishment of a methodology to contribute to the improvement of the anticipation skill in female youth wrestling athletes during tactical preparation. In such a way, that it constitutes a working tool in training, for technicians and specialists of this sport.

Methodology design:

The design of the methodology is based on the considerations of Valle Lima (2012) and Ramírez (2014). These authors consider that a methodology is a systemic sequence of stages, each of which includes mutually dependent actions or procedures that allow the achievement of certain objectives.

The objective of the methodology is aimed at contributing to the improvement of the anticipation skill of Granma's youth wrestlers, based on tactical tasks during the preparation process.

The elements that allow establishing the methodology are based on the criteria of different authors regarding the foresight of the opponent's movements. Among them González, Rodríguez and Gibert (2017), for whom foreseeing means to see into the future with thought. Likewise, imagining the course of upcoming actions, knowing how to detect in them what is fundamental and decisive. Precisely on this depends largely the outcome of the combat and the competition as a whole.

Meanwhile, Milán and Cabrales (2016) consider that the foundation of tactical thinking allows the wrestler to foresee the possible development of combat and competition. This makes possible, above all, the deep recognition of the sport wrestling. It is also necessary to take into account the characteristics of the opponent's mastery and the situation





generated. It is therefore necessary to know how to situate oneself in the opponent's position and to foresee his possible actions.

The structure of the methodology was conceived in four stages with different phases included as shown below.

*First stage*: diagnosis. In this stage, the process is prepared and the potentialities of the tactical preparation for the improvement of the anticipation skill are identified. The structure to direct the process is created and the people involved are prepared. Its objective is to elaborate the organizational bases of the investigated process. It is structured in three phases:

- 1. Diagnosis of the current state of the anticipation skill in the youth wrestlers of Granma.
- 2. Creation of the tactical working group.
- 3. Training of those involved in the tactical work to be investigated.

The second stage: elaboration and design. It allows organizing in a general way the scientific sequence of the rest of the stages and phases of the methodology. Its objective is to plan the actions and the work schedule for the improvement of the anticipation skill during the tactical preparation of female youth wrestlers. It includes the phases:

- 1. Elaboration of tactical tasks with average methods and procedures recommended for their work.
- 2. Design of the work schedule with the methodological indications to be followed.

The third stage: application. This is where the theoretical-practical transformation of the tactical preparation that converts ideas into results takes place. Its objective is to apply what is planned towards the improvement of the anticipation skill. It is composed of two phases:

- 1. Implementation of everything that has been elaborated.
- 2. Transformation of the way of working on anticipation from tactical preparation.



The fourth stage: evaluation. It is carried out during the whole process and acquires greater connotation at the moment of implementation. Its main objectives are: to evaluate the results obtained in the tactical preparation process towards the improvement of the anticipation skill, with information on the fulfillment of the planned results. It also assesses whether the planned results are maintained or whether changes or adjustments are made if necessary. It is structured in phases:

- 1. Process control.
- 2. Regulation and/or corresponding adjustment.

Once the structure of the methodology has been defined, the tactical tasks to be worked on during the preparation are determined.

Tactical task: it is defined as the activity performed by the wrestler to assimilate the content of the tactical training. It is the means by which the objective is achieved. It is the most elementary action directly related to the conditions in which the activity is carried out and contains the intentional, inducing aspect (the objective), as well as the operational, the executor (the forms and methods).

Task 1: each wrestler will be given a blue scarf on one ankle and a red scarf on the other. Located in the center of the mat, they will performed forward, backward, sideways and circular movements, with their eyes fixed on each other on one of the marked points without changing their gaze, adjusting the distance until they find themselves in the middle or short distance. The first, in estimating the ideal distance for the attack, anticipates the displacement of the other with an entry to one of the points marked on the opponent's limbs according to the movement of the opponent, the distance and the estimation of the reach of her limbs.

Objective: to estimate the ideal distance for anticipated attack actions by means of visual perception of the opponent's movements.

Methods of tactical duties.



Procedure of contextualized interpretation of tactics.

Tactical method: reconnaissance.

Task 2: The wrestlers are guided to observe the opponent's position with the possibility

of executing several actions:

If the opponent maintains a high stance, anticipate her actions with projection with head

and arm holds.

If the opponent rests the weight of the body on the back leg to perform a pull, anticipate

with a push to the lower side with a neck and ankle hold.

If the opponent keeps her arms constantly forward in search of a hold, anticipate with a

two arm to one arm hold and execute a reverse flip and/or fireman's carry. Each wrestler

has ten seconds to determine the opponent's gestures and anticipate her movements

with an effective attacking action.

Objective: to determine the fundamental signs of the opponents in order to anticipate

their movements with an offensive action.

Methods of tactical duties.

Procedure of contextualized interpretation of tactics.

Tactical method: reconnaissance.

Task 3: both athletes on the edge of the mat read the card that contains a tactical task that

must be solved by adopting a low stance, performing a pull to the opponent's head and

executing a push to the lower side with the closest neck and ankle hold. The athletes are

unaware that the cards have the same content. From the sound of the whistle, the athletes

have 15 seconds to reach the center of the mat. Then, the athletes adopt the indicated

position and once ready, either athlete, before starting, raises her hand indicating the

number that identifies the task, and tries to execute it anticipating the action of the other

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athlete who is also located at the number of the task and decides to anticipate the opponent. Points are awarded to whoever executes the task first and correctly.

Objective: to identify the tactical resource with which they can take advantage of the opponent's position in search of surprise action in the attempt of anticipation.

Stable conditions methods.

Procedure of contextualized interpretation of tactics.

Tactical method: challenge

Task 4: Both wrestlers in the center of the mat, the coach hands them a card with a task that gives them two points of advantages for taking the opponent to the passivity zone and is completed by taking her out of the wrestling area with any resource. At the sound of the whistle, the coach calls out the number that identifies the card and the wrestlers have 15 seconds to take the card to their corner and anticipate their opponent's action to solve the task.

Objective: to use the tactical means that allow a better execution of the task in minimum time, anticipating the opponent's action with explosive movements.

Stable conditions methods.

Procedure of contextualized interpretation of tactics.

Tactical method: challenge

Task 5: the wrestlers get ready in their corners to start the bout where they receive a card that contains a task, which explains that the first one who manages to perform a hold has three-point advantage and completes the task by executing a deep entry with control of both legs and back pass, which would complete five points. The winner of the task is the one who is able to anticipate the opponent's action and complete the five points in 30 seconds.

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Objective: to develop continuous grappling hold combat through actions of deep anticipation, where the application of holds is evident.

Stable conditions methods.

Procedure of contextualized interpretation of tactics.

Tactical method: bewilderment

Task 6: a card with the task of scoring two points in thirty seconds that is solved with three variants:

Feint a tackle entry, deep entry to one leg, head outside, stand with leg control and pass behind.

Two fake tackle entries, another deep continuous entry, if you surprise her, project with a tackle.

Two fake tackle entries, another deep entry, if she defends, support the outside leg from below, perform a dive and pass behind with control.

At the sound of the whistle, the coach calls out the number of the variation to be used and the wrestlers have thirty seconds to anticipate the opponent's action and accomplish the task.

Objective: to enhance the surprise action with the application of holds to anticipate the opponent's action.

Stable conditions methods.

Procedure of contextualized interpretation of tactics.

Tactical method: bewilderment, simulation.



Task 7: a card with the task of scoring two points in thirty seconds that is solved with three variants:

Feint a tackle entry, deep entry to one leg, head outside, stand with leg control and pass behind.

Two fake tackle entries, another deep continuous entry, if you surprise her, project with a tackle.

Two fake tackle entries, another deep entry, if she defends, support the outside leg from below, perform a dive and pass behind with control.

At the sound of the whistle, the coach says optional and the wrestlers opt for the most comfortable variant, as long as they can anticipate the opponent's action and solve the task with one of those variants.

Objective: to enhance the surprise action with the application of holds to anticipate the opponent's action.

Progressivity methods.

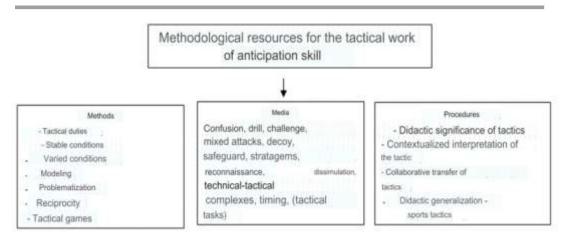
Procedure of contextualized interpretation of tactics

Tactical method: bewilderment, simulation.

The complexity of the tactical tasks increases as the athletes acquire independence in their tactical actions Figure 2.

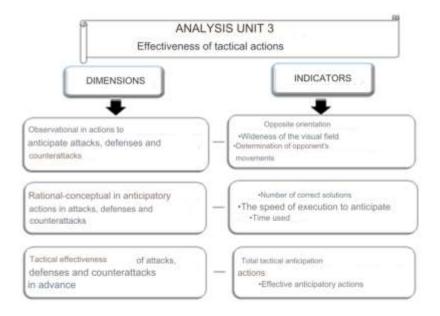






*Fig.* 2. - *Complexity of tactical tasks* 

After implementing the tactical tasks as part of the methodology, with the methodological resources considered by the authors, we proceed to the evaluation of the effectiveness of the tactical action in the solution of changing situations during the confrontations. For which a third unit of analysis was used that includes three dimensions with their respective indicators, where the pre-experiment takes place when comparing the results of the youth wrestlers before and after applying the methodology.



*Fig. 3. - Unit of analysis 1. Effectiveness of the tactical action* 





The analysis of the different indicators by dimensions was carried out by comparing one moment to another.

In the initial diagnosis based on the observational dimension, it was found that all athletes were between a medium and low level, since they were able to identify the substantial indications of the opponents and react to any gesture or feint; there are difficulties in the psychological phase of the tactical action. It is difficult for them to recognize the tactical tasks, which limits their mental and motor solution.

After applying the methodology, the improvements in the orientation of the wrestlers towards the opponent are evident, since the concentration capacity allowed them a better amplitude of the visual field; they were able to determine the main movements of the opponents, discarding the deceitful gestures and maneuvers. When processed statistically, the dimension shows significant differences with a value of 0.004 between one moment and the other.

When comparing the results of the conceptual rational dimension in the final moment, it is revealed that the wrestlers develop a greater number of correct solutions. With a high level of anticipation speed in much less time than the initial moment, which is a reflection of the practical concreteness of the variability of operative thinking in the solution of the tactical tasks presented. Between one moment and another, there was a significant difference framed at a value of 0.000.

For the dimension of tactical effectiveness, at first 53 bouts were observed, in which a limited number of effective tactical actions of anticipation based on attack, defense and counterattack were performed. The opposite happened after applying the methodology, where out of 49 combats, 40 were won with a predominance of effective tactical actions of anticipation in attacks. It should be noted that with 93% of the anticipation actions performed it was possible to score technical points; in 87% it was possible to increase the advantage over the opponents and in 82% it was possible to achieve victory. These actions speaks of a creative wrestler with great tactical variability and a high development of operative thinking, which were able to integrate the skill of anticipation





to their competitive tactical actions. It was corroborated with the processing of the data, which in this opportunity was 0.008 and confirms the significant difference between one moment and another.

The research contains findings that coincide with previously studies on tactics. Among them, the determination of the complex nature of this component based on its biological genesis stands out. This aspect is based on the interaction between the different functional units of the brain and its relationship with sensoperceptions, memory, imagination, thinking, creativity, language and other forms of complex conscious activity of the athlete as proposed by (Cabrales, Sierra and González 2024).

Another important aspect is the materialization in the training units of the specific didactic components of the tactical component. In this sense, similarities are found with Fernández, Cedeño, La Rosa and Lanza (2022), in their methodology for the tactical preparation in youth wrestlers of the Greco-Roman modality. In particular, in relation to the demands, contents and tactical means, from which excellent reflections aimed at the development of tactics in wrestling which are shared, although they are performed in different styles and genders.

The levels of tactical action reached in this article have an impact mainly on the psychological aspect. This result coincides with Cañizares, Orta and Suárez (2022), who also address the psychological component in sport. Their results go specifically towards the analysis of perceived self-efficacy in the Cuban high-performance athlete. They value it as a predictor of the self-regulation of behavior expressed in volitional qualities and personality traits, related to the confrontation of adversities in athletes.

### **CONCLUSIONS**

The diagnosis carried out in the training scenarios of the youth wrestlers of Granma, manifested insufficiencies in the improvement of the anticipation skill, due to limitations on the theoretical and methodological knowledge of tactical preparation.



The methodology organized in stages with successive and interrelated phases, based on tactical tasks, contributed to improve the anticipation skill during the tactical preparation of youth wrestlers.

As the wrestlers integrated the anticipation skill as an important resource in their arsenal we can say that the results of the pre-experiment showed significant differences in the competitive tactical actions of the wrestlers.

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# Conflict of interest:

The author declares no conflicts of interest.

# Authors' contribution:

The author has participated in the drafting of the work and analysis of the documents.



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