

Tactical technical preparation in the execution of the mawashi geri in karate fighters 13- 15 years old

Abstract

The research was carried out with the purpose of implementing technical-tactical preparation exercises for the execution of the Mawashi Geri in the karateka category 13-15 years of the “Marina Samuel Noble” School of Sports Initiation School of Ciego de Ávila; In order to enrich the teaching resources, the determining nature of the technical-tactical approach in the training of the karate fighter was assumed and a pre-experimental design was applied. Theoretical level methods were used such as: analytical-synthetic, historical-logical, inductive-deductive; modeling and empirical level: measurement, in addition to mathematical and statistical methods, including percentage analysis and descriptive statistics, which made it possible to demonstrate the results through the assessment of the practical effects of the exercises with the application of a test that measured technical-tactical preparation in real competition situations. A methodology is projected for the exercises with their respective structure, assuming current authorial criteria, taking into account exercises for the attack and exercises for the counterattack, which allowed the proposed objective to be achieved, and is demonstrated with the results of the post-test.

Keywords: mawashi Geri, tactical technical preparation, Karate-Do.

Introduction

The historical background of Karate-Do shares similar traits with all martial arts. This martial art was developed in Okinawa, a Japanese colony, and took its true characteristics “as the path of empty hands” throughout the territory of Japan, where the technical elements that came from Okinawa were merged with the spirituality of Japanese Budo; which resulted in Karate-Do acquiring its true dimension as an art of spiritual reintegration. (Quevedo. 2022, p.7)

Karate-Do is a combat sport of hand-to-hand fighting, it is related to variable physical exercises, its characterization is given by the structure, direction and force with which the motor acts are performed, which are not programmed in advance, but it depends on the situations that arise at various times in your practice.

In the execution of Karate-Do, a mixed-variable biochemical-physiological foundation prevails, where the mechanisms of obtaining ATP by anaerobic lactic acid or glycolytic

routes predominate. This is demonstrated by the duration of kumite and kata, which ranges between 2 and 3 minutes. It is valid to clarify that the author refers to global time. But it also ventures into alactacid or phosphagen mechanisms, with a predominance of rapid executions in hundredths of seconds. (Rodríguez. 2019, p.1)

On the other hand, the authors agree with Morales, Y (2011) who when characterizing sports Karate-Do expresses that... "it is a contact sport, an individual sport or sport without cooperation and with opposition from the opponent; of direct confrontation between two contenders where each one tries to achieve victory..." Quoted by Tamayo. (2019, p.1)

In another sense, Águila, D, Sánchez, AB and Hernández, E (2019) work on strength training and highlight that it must be combined with exercises close to the specific technique of the discipline, that is, it is about training strength through specific competition gesture or exercises of a similar structure combined with technical ones.

The Mawashi Geri (round kick) is one of the main kicking techniques in Karate-Do. It was created by the master Gichin Funakoshi after the Second World War. It has power and technical versatility, it is also one of the most combined with other technical elements in sports combat. This technique can be performed with both the front and back legs.

In contemporary sport, basic preparation, optimal tactical and physical technique is required so that the athlete maintains excellent performance during the sporting confrontation, coupled with theoretical and psychological preparation, which is why Mawashi Geri is developed as a technical content, but that takes shape during the karateka's technical and tactical preparation.

In sports literature it also refers to... "that sports technique: is nothing more than movement or structured sequence of movements in space and time, established from prior knowledge and practical experience, developed to solve a problem of engine type in the most rational and economical way, capable of being adapted to the athlete, and with the aim of achieving maximum sporting performance." (Bermejo. 2020, p.2)

Consequently, the assumed concept of tactics is also valued, which refers to "Tactics is the set of ways of applying technical procedures in correspondence with the conditions of the competition." (González, 2018, p.2)

Other authors such as Solórzano (2017) and Hernández (2021) highlight that during initiation into Karate Do, sport-specific exercises and other alternative exercises such as Capoeira are used that influence the execution of leg techniques, but they do not work

with a tactical technical approach. In this sense, we agree with Silva, Y (2009), who provides a methodology for teaching based on technical-tactical preparation.

Considering that both preparations are a dialectical unit and that they allow the karate fighter to analyze and solve tasks effectively during combat, the determining nature of the tactical technical approach in the training of the karate fighter is assumed, the position is based on the arguments previously stated and the evident development of this sport, whose results have reoriented the philosophy of training and preparation; As a consequence, there is a need to train independent, intelligent, analytical, creative karatekas, with a high technical level and resolution in the face of the varied situations typical of the confrontation that occurs in opposition work.

During an analysis related to the process of preparing school karatekas category 13-15 years of the School Sports Initiation School (SIS) “Marina Samuel Noble” of Ciego de Ávila, as well as the results obtained in the School Games, it was possible confirm that the fights were won by the karatekas who prioritized the use of leg techniques and that they are effective in them, it is also confirmed that, in the technical evaluations carried out by members of the National Sports Commission to all participants in the event, the members of the province obtain score ranges below those established to qualify as good in the Mawashi Geri.

When reviewing compliance with the contents of the training plan, it is observed in the document's memoirs that karate fighters present difficulties in executing attack and counterattack actions with the Mawashi Geri technique during combat, which can be summarized as: insufficient effectiveness in combat with the execution of the Mawashi Geri.

Taking these elements into account, it was determined to address the following scientific problem: insufficiencies in the tactical technical preparation for the execution of the Mawashi Geri in the karateka category 13-15 years of the SIS “Marina Samuel Noble” of Ciego de Ávila.

To address a possible solution to the scientific problem, the following objective was formulated: Implement technical-tactical preparation exercises for the execution of the Mawashi Geri in karatekas category 13-15 years of age from the SIS “Marina Samuel Noble” of Ciego de Ávila.

Materials and methods

We worked with a population of eight male karatekas, who represent 100% of the members of the category. An experimental research design was used, in its pre-experiment variant, through a pretest-posttest for a single group.

During the research process, different methods of thought logic were used, including analytical-synthetic, historical-logical, inductive-deductive. They allowed the critical evaluation of the bibliography and documentation, the determination of the theoretical and methodological foundations on the technical-tactical preparation of the karate fighters in the execution of the Mawashi Geri, and at the same time carry out a selection, foundation and implementation of exercises to arrive at the conclusions.

For field work, measurement is used that allowed quantitative and qualitative results to be obtained, both in the diagnosis stage and after the exercises have been applied. In addition, the mathematical and statistical methods included percentage analysis and descriptive statistics that allowed inferences to be made from the numerical data provided by the applied techniques and instruments.

Results and discussion

For the development of the research, 4 stages were planned, which are referenced below and are treated in that order: diagnosis, selection, implementation and evaluation. For the application of the pedagogical test, the evaluation scales were respected according to the Comprehensive Athlete Preparation Program (2022), which is based on the criterion of effectiveness of the technique.

Table 1. Evaluation key for the effectiveness of technical actions.

Legend			
technical action	AT	-10%	Bad (M)
effective action	AE	10% - 20%	Average (R)
Percentage of effectiveness	% E	21% - 25%	Good (B)
		+25%	Very good (MB)

Analysis of the behavior of the technical-tactical preparation in the execution of the Mawashi Geri in the Pretest. Competition No 1

The first preparatory competition will serve as an initial diagnosis to measure the current state of technical-tactical preparation in terms of the execution of the Mawashi Geri with any of its variants during competitive performance. It yielded the following results.

Table 2. Statistical table of the Pretest results. Competence. No.1

Technique	Mawashi Geri Chudan				Mawashi Geri Jodan				Ura Mawashi Geri				Total			EV
	AT	AE	%E	EV	AT	AE	%E	EV	AT	AE	%E	EV	AT	AE	%E	
1	6	1	16	R	7	1	14	R	4	1	25	B	17	3	18	R
2	8	1	12	R	8	1	12	R	5	1	20	R	21	3	14	R
3	6	1	16	R	6	1	17	R	6	1	16	R	18	3	17	R
4	7	1	14	R	9	2	22	B	7	1	14	R	23	4	17	R
5	5	1	20	R	6	1	17	R	8	1	12	R	19	3	16	R
6	8	1	12	R	9	2	22	B	5	1	20	R	22	4	18	R
7	5	1	20	R	10	3	30	MB	4	1	25	B	19	5	26	MB
8	9	2	22	B	7	1	14	R	7	1	14	R	23	4	17	R
Total	54	9	17	R	62	12	19	R	46	8	17	R	163	29	18	R

Technique	Mawashi Geri Chudan				Mawashi Geri Jodan				Ura Mawashi Geri				Total		
	AT	AE	%E	EV	AT	AE	%E	EV	AT	AE	%E	EV	AT	AE	%E
Average	7	1,12	17		8	1.5	19		6	1	17		20	3.6	18
Minimum	5	1	12		6	1	20		4	1	12		17	3	14
Maximum	9	2	22		10	3	40		8	1	25		23	5	26

Diagnostic assessment

When analyzing the technical-tactical behavior in the execution of the Mawashi Geri with its three variants in real combat situations, it can be seen that of 8 athletes, only 1 is evaluated as very good, the remaining 7 have a regular evaluation. Maximum values of executed techniques are observed to be 23 and minimum values of 17, with an average of 20. Regarding effective actions, the maximum is 5, the minimum is 3 and the average is

3.6. In general, 163 technical actions were carried out, of which 29 were effective for an 18% effectiveness. Therefore, the general evaluation taking into account the percentage of effectiveness is average.

Foundation of the exercises for technical-tactical preparation in the execution of the Mawashi Geri

For the implementation of the exercises, the contextualization indicators defined by Guillén (2014) cited by Quiñones (2021) for the tactical technical work of combat sports were assumed. In the dynamics of teaching, simulation and modeling methods will be used, whose objective will focus on:

- ✓ Simulation of the process to identify the particularities in all its dimensions (offensive or defensive conditions).
- ✓ Identify problems, situations, reactions, become familiar with the situations that occur in opposition work and types of responses (use as teaching resources: videos of skills, technical analysis of kumite).
- ✓ Modeling: promote the construction of a model for the use of the technical resource under study, managing to create dynamic stereotypes that allow increasing the athlete's tactical technical arsenal to create and solve situations in opposition work.

In addition, the following methodological steps are suggested for working with the technical-tactical action at different moments of preparation.

The actions will be executed in the following way: execution of actions without opposite, execution of actions with passive opposite, execution of actions with semi-active opposite, execution of actions with active opposite, but with directed responses, execution of actions in variable situations (with tasks and free), execution of actions in problematic situations, execution of actions in real combat situations.

Introduction of the exercises into practice: The technical and organizational actions were developed for the implementation of the exercises. The objectives, biological and psychological characteristics of the athletes, as well as the available means and material resources were taken into account.

General indications of the exercises

General Objective: Develop technical-tactical skills in the execution of the Mawashi Geri with any of its variants in real combat situations, which allow the achievement of victory.

Methods: Demonstration, explanation, standard and variable repetition, simulation, modeling, problem solving and competitive.

Media: Documents, gym, stopwatch, whistle, markers.

Time: 30-45 minutes established for technical-tactical preparation during the special and pre-competitive preparation stage.

Organizational work procedures: Individual, frontal and group work (pairs, trios, quartets and groups).

Evaluation: Systematic and daily, individually and in groups, using co-evaluation, and self-evaluation by carrying out the practical activity.

Exercises for technical-tactical preparation in the execution of the Mawashi Geri

Exercise 1. Numbering of attacks.

Objective: Identify the attack suggested by the coach.

Methodology of execution: Each attack is listed with more than one number, these can be with the forward or backward leg at different levels and with any of its variants. It must be combined with different feints and arm techniques. The coach says a number and attacks. This can be static, moving, on flat ground or elevation. This work is individual in shadow.

Exercise 2. The surprised one attacks.

Objective: Use combination attacks with Mawashi Geri.

Methodology of execution: Tori on his back in Hachiji Dachi, Uke from behind, he touches Tori's shoulder and he turns attacking with Mawashi Geri with the variations and arm combination indicated by the coach, Uke only retreats without blocking or counterattacking. This work is in pairs.

Variant: The combinations executed by the karate fighter can be free as long as the Mawashi Geri is prioritized.

Exercise 3. The surprised one counterattacks.

Objective: Use combined counterattacks with Mawashi Geri.

Methodology of execution: The karate fighter, upon being surprised by an attack, must be able to counterattack with Mawashi Geri. Tori on his back in Hachiji Dachi, Uke from behind touches Tori's shoulder and he turns around defending and counterattacking Uke's attack with Mawashi Geri with the variation and arm combination that is possible. The work is in pairs.

Exercise 4. Happo (development of technique in the eight cardinal points)

Objective: Perform defense and counterattack with Mawashi Geri in the eight cardinal points.

Methodology of execution: In Kamae Tori and with 4 opponents, one in front, one behind and on each side (Aka), they make attacks as the opponent turns, defends and counterattacks with Mawashi Geri with the variant and arm combination that is possible. The work is done with 5 karatekas.

Exercise 5. Russian roulette. Attack.

Objective: Improve confidence when attacking with Mawashi Geri.

Methodology of execution: Tori in the middle of a Karateka circle turning according to the direction indicated by the coach, the karateka feints as the coach says and Tori attacks with Mawashi Geri with the variation and arm combination that the coach has indicated according to numbering. Of attack.

Variant 1: Ditto but Tori attacks freely.

Exercise 6. Russian roulette. On the counterattack:

Objective: Perform counterattacks with Mawashi Geri.

Method of execution: Tori in the middle of a circle of Karatekas turning according to the direction indicated by the coach, attacks the Karateka that the coach says and Tori counterattacks with Mawashi Geri with the variant and arm combination that the coach has indicated according to numbering Of attack.

Variant 1: Ditto but Tori counterattacks freely.

Exercise 7: Defense and counterattack with Mawashi Geri to arm techniques: Objective: Use counterattacks with Mawashi Geri to arm techniques.

Method of execution: As a couple, Uke attacks with his arms in different ways, straight, circular, to the face, in the center or below, Tori defends and counterattacks with Mawashi Geri with the variant and arm combination that is possible. This work is in pairs.

Exercise 8. Dodge.

Objective: Carry out a counterattack prioritizing the Mawashi Geri.

Method of execution: Tori in Kamae is attacked by Uke, he avoids being hit, moving backwards and to the sides, always leaving the distance with dodge and attacks with Mawashi Geri with the variant and arm combination that is possible, the work can be with more than one opponent, which would give it a greater degree of difficulty.

Exercise 9. Defense and counterattack with Mawashi Geri. To leg techniques.

Objective: Use counterattacks with Mawashi Geri to leg techniques.

Methodology of execution: As a couple, Uke attacks with leg techniques in different ways, Tori defends and counterattacks with Mawashi Geri with the variation and arm combination that is possible. The work is in pairs.

Exercise 10. Quick defense:

Aim. Use counterattacks against different attacks, prioritizing the Mawashi Geri.

Implementation methodology. Tori in Kamae and two opponents, one in front and one behind, do attacks with arms, legs or free, when Tori turns and stands in front depending on what the coach advises, Tori defends and counterattacks with Mawashi Geri with the variation and arm combination that is possible. The work is in trio.

Variation 1. Ditto but Uke only makes feints and deep feints and Tori attacks with Mawashi Geri with the variation and arm combination that is possible.

During variant 1 the objective of the exercise changes, this would be. Improve confidence when attacking with Mawashi Geri.

Analysis of the behavior of the technical-tactical preparation in the execution of the Mawashi Geri in the Posttest. Competence. No.2.

Table 3. Statistical table of the Posttest results. Competence. No.2

	Mawashi Geri Chudan				Mawashi Geri Jodan				Ura Mawashi Geri				Total			
	AT	AE	%E	EV	AT	AE	%E	EV	AT	AE	%E	EV	AT	AE	%E	EV
1	8	2	25	B	8	2	25	B	7	1	14	R	23	5	22	B
2	7	2	28	MB	7	1	14	R	8	1	12	R	22	4	18	R
3	5	2	40	MB	8	2	25	B	10	1	10	R	23	5	22	B
4	6	1	16	R	10	3	30	MB	6	1	16	R	22	5	23	B
5	9	2	22	B	7	2	28	MB	4	1	25	B	20	5	25	B
6	6	1	17	R	8	2	25	MB	6	1	16	R	20	4	20	R
7	7	2	28	MB	9	2	22	B	8	2	25	B	24	6	25	B
8	9	2	22	B	10	2	20	B	4	1	25	B	23	5	22	B
Total	57	14	25	B	67	16	24	B	53	9	17	R	177	39	22	B
Technique	Mawashi Geri Chudan				Mawashi Geri Jodan				Ura Mawashi Geri				Total			

	AT	AE	%E		AT	AE	%E		AT	AE	%E		AT	AE	%E	
Average	7	1.8	25		8.3	2	24		6	1	17		22	4.8	22	
Minimum	5	1	16		7	1	14		4	1	10		20	4	18	
Maximum	9	2	40		10	2	30		10	2	25		24	6	25	

Assessment of the second moment

When carrying out the analysis of the technical-tactical behavior of the execution of the Mawashi Geri with its three variants in real combat situations, it can be seen that of 8 athletes, 6 are evaluated as good and the remaining 2 have a regular evaluation. Maximum values of executed techniques are observed to be 24 and minimum values of 20, with an average of 22. Regarding effective actions, the maximum is 6, the minimum is 4 and the average is 4.8. In general, 177 technical actions were carried out, of which 39 were effective for a 22% effectiveness. Therefore, the general evaluation taking into account the percentage of effectiveness is good.

In the pretest, minimum values of executed techniques of 17 and maximum of 23 are observed, with an average of 20. Regarding effective actions, the minimum is 3, the maximum is 5 and the average is 3.6. Regarding the percentage of effectiveness, the minimum is 14, the maximum is 4 and the average is 18.

In the pretest, when adding the three variants of the Mawashi Geri under investigation, it was observed that 163 technical actions were carried out; however, in the post-test, 177 were carried out, so there was an increase of 14 technical actions.

In the effective actions in the pretest, there were 29 actions that met the requirements for scoring and in the posttest 38 of these actions were valid, so the effectiveness index in the pretest is 18 and in the posttest it is 22. When analyze these results and taking into account the evaluation scale that appears in the Comprehensive Athlete Preparation Program, the qualitative result is reached that the pretest is evaluated as regular and the posttest as good.

The results achieved differ from those presented by Carmona, Soria and Labrada (s/f) who discuss the improvement of the Mawashi Geri from a set of static and dynamic balance exercises since these are adjusted to sports initiation in category 11. -12 years and they work on it based on the three phases of the technical gesture.

The data obtained reveal the relevance of the exercises. This shows that based on the work developed during the preparation process, it is possible to raise the tactical technical level in the execution of the Mawashi Geri in real competition conditions.

Conclusions

The systematization of the theoretical-methodological and practical foundations of the research allowed us to delve deeper into the technical-tactical preparation process and address the selection, ranking and methodological treatment of the exercises in the execution of the Mawashi Geri in the karate fighters.

The selection and implementation of the exercises for the technical-tactical preparation in the execution of the Mawashi Geri in the karate fighters, reveals that it is operational and adaptable, which allowed offering an alternative solution to the problem raised.

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