

INTERACTION AND COMPLEMENTARITY'S BETWEEN KARATE SPECIFIC RESOURCES AND ADAPTED TOOLS FROM DIFFERENT SPORT MOTIONS IN MULTILATERALLY TRAINING FOR MILITARY STUDENTS

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Abstract: *The multilateral training for future officers is determined by the creation of a training schedule based on: enhancement of movement abilities (speed, force, resistance, coordination, fitness, mobility) and psychomotor (the body scheme, vitality, static and dynamic equilibrium, ambidexterity, muscle tonus, time-space perception, space integration, reaction speed, anticipation speed, decision speed, concentration, emotion stability) and, on the same time, the evolvement, consolidation and fine tuning of a wide spectrum of base movement and applied psychomotor utilities through the karate tools fulfilled with adapted portions from other sports (athletics, gymnastic) all of them contributing to a complete body shape and stress resistance, the characteristics of future military professional combatant with a winner mentality, who has the capability to solve the most stressful situations encountered during the missions from military field.*

Keywords: karate, movement, psychomotor, versatility, tools.

INTRODUCTION

Studying from different perspective the combat forms, as an older and modern trainees (for more than 30 years), I have considered that respecting the principles, one can benefit of the transformation of the body shape not only on the physical, but also at the psychological level through the: enhancement of body shape, developing a superior capacity of concentration, a mental equilibrium at higher level, possessing a pragmatic and adaptive spirit to the most complex situations, enrichment of team work spirit, honesty, respect and honor, and last but not least having a good feeling and health at high level of excellence.

What is KARATE? It is an old style of combat, a martial art, formed by two ideograms: KARA – empty, and TE – hands, with "empty hands", the practitioner of karate (the karateka) to be able to neutralize an armed aggressor, who is endangering his integrity.

This martial art can be performed by children's, young people and adults, and give them the possibility to value through practice at least one part of their capabilities. By training, the one being shine and being afraid of expressing their thoughts are discovering a new way to win their trust and enriching the human interactions through the learning process and teaching them how to move their body, which along his evolvement from ancestral times, has lost his genuineness reported to the Universe laws.

Gaining and rediscovering the natural posture, through the intense karate training, aim the need to win mobility and fitness of body that became rigid in time. Training in a progressive manner,

from light to heavy, from easy to complex, the body became more flexible, freeing the tension from body muscles and mind, leading to a calm inner world, to equilibrium, being prepared through this transformation to a "NEW" window that opens the surrounding world and the great Universe.

The contemporary world is characterized by an accelerating and complex evolution, creating many dependencies between his components, which imply remarkable consequences to the evolution and accomplishment of human being. As a result it imposes taking the measures and finding educational solutions through the creation of special training program.

The implementation of karate training in the educational system is one of the solutions and can be determined by a social necessity with results at a level of excellence through a seamless physical evolvement and maintaining the health level at superior standards.

With regards to the presented case within this article it has a special social requirement: the enhanced training for the future officers that is the basement of quality and selection to the aspiration of high performance objectives of military domain.

Karate as a completion of social necessity could contribute to the enrichment of cultural values and transforming them in life treasures, representing the fundamental adaptation of the person to the surrounding society.

SCOPE AND OBJECTIVES OF THE RESEARCH

The scope consists in using the specific resources from karate, athletics' and gymnastic, which adapted to established requirements will interact and complete each other, and contributing to the evolvement of movements and psychomotor activities, gaining the space-time orientation, improving the speed for decision, contributing to the development of creativity and imagination, in other words, the transformation of the body through the specified means.

As a consequence, from the scope will result the objectives as follows:

I – theoretic objectives (TO):

- the selection and adaptation of tools for education/development of movement abilities and psychomotor activities for military students;
- the establishment of adequate strategies coordinated with specific characteristics of selected subjects.

II – the practice objectives (PO):

- the elaboration of a pilot project for instruction using the resources adopted from karate, athletics and gymnastic, which shall interact one with each other and with the requirements of the graduation model from the academic military environment specific to air forces;
- the experimental argumentation of efficiency for established model.

THE HYPOTHESIS OF RESEARCH

- it will be identified the characteristics those could be trained and are specific to the age of 19-21 years, then will be possible the improvement of educational process for movement abilities and psychomotor activities of military students;
- the education of movement abilities and psychomotor activities for future officers will have a positive impact and will be possible that the bio-psycho-professional performances will have an ascending trajectory.

THE METHODS OF THE RESEARCH

1. The documentation method – is the method through which the researcher is gaining the results obtained by other researchers from that specific domain, considering the identification, consultation and selection of required bibliographic materials.

2. The pedagogical observation – is referring to the continuous observation of the educational process and the behavior of the subjects through out the training program that is evolving based on a specific plan.

3. The dialogue method – it suppose that in a comfortable environment, between the researcher and the subject to take place a dialogue about the theme, the inner feeling of the subject from bio- psycho-psychomotor perspective.

4. The experimental method – it consists in the verification of the supposed relationship (presented in the hypothesis) between two phenomena through the provocation and control of it by the researcher [3].

5. The statistic method – it represents the processing of quantitative study of tools and phenomena included in the research.

6. The graphic method – refers to the intuitive representation of the research data, through which the essential is highlighted and the exact evaluation of data is performed.

THE ORGANIZATION OF THE RESEARCH

The subjects of the research are represented by the students from the Air Force Academy “Henri Coandă” – Braşov, arranged in two groups, each of them containing 32 persons: the experimental group and the control group. The psycho-pedagogical experiment was conducted in a period of two years between 2012-2014.

In this paper is presented the experimental group that has included in the educational training the karate specific resources and adapted tools from different other sports like athletics and gymnastic those interacting one with each other and completing in between.

The running part was taken from athletics, from where two parts were taken in consideration, and from gymnastic were selected and adapted exercises those strengthen the power, coordination and mobility.

The evaluation of students was performed in two stages:

- the initial evaluation after the first year of training;
- the final evaluation, at the end of the second year of training.

The probes of the research were:

a – the speed of execution for a specific karate technique, mawashi-geri, a round kick with the leg, performed in the kicking training bag specific for the combat, performed in 15 seconds. The execution speed was important in combination with the force used.

b – the execution of push-ups in combination with simultaneous touch of the palms and legs for a period of 15 seconds. The speed was combined with force and coordination.

c – the running through a distance of 50 meters, from a low standing position adapting the posture, keeping the hands on the ground and pushing the ground with the leg fingers, having the body orientation in opposition with the

running direction. In these conditions the running speed was dominating, combined with the reaction time, force and space orientation.

d – the running through a distance of 2000 meters when changing sequentially the tempo at command (whistle) for 10-15 meters in abnormal time intervals. The resistance was dominant combined with reaction time, the running speed through short distances and force.

As it can be concluded from the results presented, the execution speed is measured and evaluated, the other metrics (reaction time, running speed, force, coordination), are complementary to established objectives, with a determined role in its fulfillment.

OBTAINED RESULTS

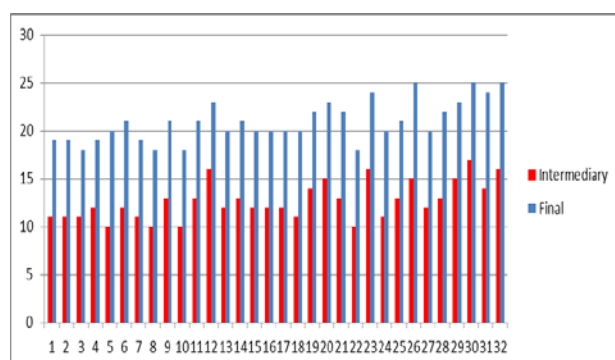


Figure 1: Mawashi-geri (in 15 sec) test results

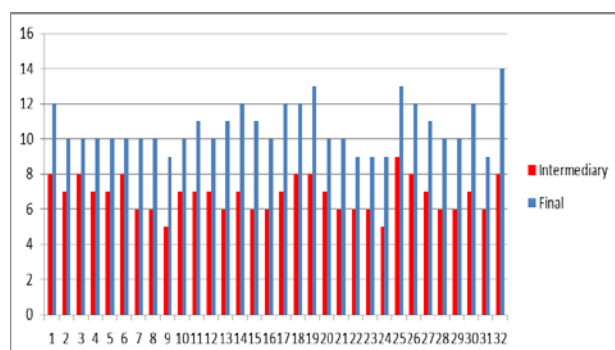


Figure 2: Push-ups with simultaneous touch of hands and legs (in 15 sec) test results

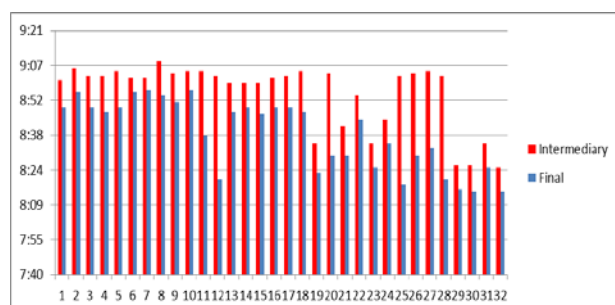


Figure 3: Running (2000m) test results

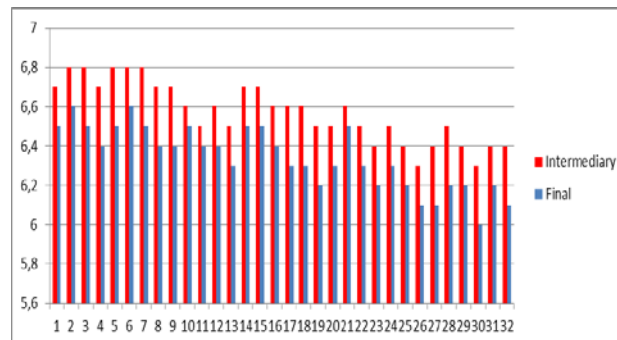


Figure 4: Running (50m) test results

STATISTICAL INTERPRETATION

For the validation of the progression suggested by the results from figures 1 to 4, a statistic analysis of the data needs to be performed. For that is used the test t (student) bilateral, who will confirm or disprove the null hypothesis H_0 , which sustain the equality of the environment for the analyzed selections $m_1 = m_2$.

The model of the test t is presented in [5].

In tables 1 to 4 is compared the final performance against the initial values for the experimental group.

Table 1 – Statistics Mawashi-geri

Mawashi-geri (in 15 sec)	Number of subjects	Average	Standard deviation	Test „Student”	
				t	p
Experimental group	Initial	32	12.69	60.7	<0.01
	Final	32	20.97		

Table 2 – Statistics Push-ups with simultaneous touch of hands and legs

Push-ups with simultaneous touch of hands and legs (in 15 sec)	Number of subjects	Average	Standard deviation	Test „Student”	
				t	p
Experimental group	Initial	32	6.8	23.6	<0.01
	Final	32	10.66		

Table 3 – Statistics running 2000 m

Running (2000m)	Number of subjects	Average	Standard deviation	Test „Student”	
				t	p
Experimental group	Initial	32	8:55	4,79	<0.01
	Final	32	8:38		

Table 4 – Statistics running 50 m

Running (50m)	Number of subjects	Average	Standard deviation	Test „Student”	
				t	P

Experimental group	Initial	32	6:57	0.025	5.94	<0.01
	Final	32	6:34	0.023		

The implicit level for the threshold value for the significance of “Student” test implemented in MS Excel is 95% and it was utilized in analysis presented in tables from 1 to 4 and leads to the result that the null hypothesis is accepted if the probability determined by the appliance of test verifies the inequality:

$$p > \alpha = 1 - 95\% = 5\% = 0.05$$

(1)

It can be easily identified that all the probabilities from tables 1 to 4 does not satisfy the condition (1) and so we need to accept an alternative hypothesis, so the average of the two probes are different. In other words, the progress of performances for the tested subjects (highlighted in figures 1 to 4) are not aleatory and are a consequence of the instruction training used during the research.

In Dan Deliu opinion [1], the speed is the report between the distances taken by one segment of the body of the combatant as a whole in execution of an act or movement action in a time interval as short as possible.

The running through a distance of 2000 meters when changing sequentially the tempo and with high intensity is very close to the complex situations that are always changing during the combat training or competition circumstances.

The resistance in combat discipline is considered (by the same author) to be the capacity of the combatant body to resist a physical and psycho full engagement in the condition of a long lasting solicitation from a specific fight, with 2 or 3 rounds, depending on style, without the

modification of the efficiency through the appearance of tiredness [1].

In the present research it was tried to highlight that depending on the established objectives, throughout the selected tools and adapted to the requirements, it can be developed and enhanced the speed execution in karate, in (combination) force regime, resistance, coordination, and in interaction with portions from athletics and gymnastic.

Up to this moment, in specific literature, the majority of the specialists, including the author mention before, affirmed that a driving quality cannot be isolated to be enhanced, but, depending on the theme and objective, this/those could be improved by tacking in consideration the others regime: speed–force, force–speed, speed–resistance, coordination–speed, speed–coordination, speed – force – coordination, force – speed – coordination, and so on. Always the first driving quality is the dominant one, and the others are complementary.

As a consequence, because of versatility and complexity of diverse tools utilized in training, through the identification of the characteristics those could be improved and specific to the age of future officers, through the correct methodology with a wide applicability in the martial combat, according to the military environment, it will have spectacular grow of driving capacity and psychomotor abilities, in forming strong characters and personalities, the characteristics of modern professional fighter, a leader, manager and becoming combatant.

At the end, highlighting the aim to reach spectacular results, come with the necessity to renounce to the “OLD” and be open for “NEW”, which is in a permanent change.

CONCLUSIONS

From the interpretation of the results, we can conclude the following:

- the interaction between karate resources and the tools from athletics and gymnastic it was proved to be accessible through the adaptation to the age and level of knowledge of military students and to the necessity of social environment requirements;
- through the used tools, from the components of sport training (physical training, technical-tactic training, psychological training, and theoretic training) it was taken in consideration especially the physical, psychological and theoretical ones;
- the sample selected has a wide range of applicability in self defending system (mawashi-geri) and in the evaluation of the level of the physical strength (push-ups);
- the students from the experimental group developed a positive feedback during the training and the progress of experimental group was taken place because of interaction and complementarities of the selected means.

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