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Reflection on kumite in karate-do Hamida khaled

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Abstract:

The development of sports competition in karate has known great momentum, either in kumite or in kata this momentum affects all factors and forms of preparation and development of the athlete. The following approach will try to present a reflection on the kumite system and its interaction with its traditional forms - which are indirect - and new forms of direct approach.

Key words : Reflection kumite karate-do

الملخص: شهد تطور المنافسة الرياضية في الكاراتيه تقدما كبيرًا، سواء في الكوميتيه أو في الكاتا، يؤثر هذا التطور على جميع عوامل وأشكال الإعداد والتطوير للرياضي. سنحاول من خلال الدراسة التالية تقديم نضرة على نظام الكوميتيه وتفاعله مع أشكاله النقليدية – غير المباشرة – والأشكال الجديدة للمقاربة المباشرة.

الكلمات المفتاحية: تأملات -الكوميتيه - الكاتا.

1-Introduction:

"The metamorphosis of each sport in society over the generations tells us about the importance of the latter in fitting in with the values of the society and at the same time instilling in it their own. Karate-do as a martial art, and discipline of life to undergo during its history - since its appearance in Okinawa, its japonization, to finally reach the status that we know it today that is to say sport of competition - very important changes and it continues to do so in order to adapt to the needs of society and thus support it without losing itself most of its existence, its values and its philosophical and technical richness "¹

Despite this, Gichin funakoshi considered that karate cannot be marketed or adapted to competition; such is the conviction of the founder of this martial art.² It was only after his death that the first Japanese championship was established with the approval of his successor, master Nakayama in 1957. Since this event, karate has continued to develop and spread across the four corners of the globe. Sports competition has allowed the evolution of its preparation and training system. Kumite as a major objective has also experienced this development and by the same to changes due to changes in arbitration rules and methodological approach methods in the process of of various preparation and management its components. In this study, we will present a reflection on the kumite system and its interaction with traditional forms - which are indirect - and new direct forms of approach.

1. Research question and hypothesis:

Are the forms of traditional kumite an obligatory passage in the process of development and improvement of kumite specialty karateka?

We believe that traditional forms of kumite are essential in order to harmonize the multifaceted development of karateka.

2. Research method:

For this study we opted for the analytical descriptive research method based on bibliographic and documentary analysis according to the Withney1951 classification (Hassen Ahmed Chafiy & Susan Morsi, 1995)³

3. Conceptual analysis:

The meaning of the word Kumite is deviated from its true meaning; because in the language of sports competition this term means only "combat" but does not prevent it from conveying a deeper meaning linked to the practice of karate-do itself.

3.1. Definition of Kumite:

- ✓ "karate. Combat, assault. (Kumi: meeting, grasping. Te: main) it is the practical application, with a partner of the basic techniques (kihon) and those learned in the kata...we cannot stress enough the importance of the kata for the Kumite ..."⁴
- ✓ "Kumite": from "Kumi", meeting and from "Te", hands. A Kumite is therefore the meeting of the hands. It's a nicer form than the term "combat"⁵
- ✓ Kumite is a training method that allows you to concretely apply the offensive and defensive techniques learned in the kata, the opponents are face to face "⁶
- ✓ Kumite is therefore the application of katas. It is the kata applied with "Maai" we can compare the importance of katas and Kumite in karate-do to that of the two wheels of a cart "⁷

Both of these definitions emphasize the role of kata development on Kumite, but what type of Kumite is so closely related to technical mastery of kata? In sporting reality, the facts are quite different for the simple reason that kata champions are not necessarily those of Kumite. This controversy remains in the context of future research; nevertheless, the need to shed light on the notion of Kumite is of great importance.8

3.2. Calcification of different types of Kumite:

When we approached the classification of the types of kumite, this implies the traditional path adopted by the masters who transmitted this martial art to us.

3.2.1. Classification of Mr. Nakayama:

He classifies Kumite into three types:

- 1) The conventional Kumite.
- 2) The jiyu-ippon-Kumite.

3) The jiyu-Kumite (which is the invention of Gogen Yamagushi)⁹

3.2.2. Classification of Roland Habersetzer¹⁰:

1-kihon- kumite, yakusoku-kumite (study assaults with initial conventions):

1-a /Tanren Kumite :

a-1/Gohon Kumite : Kumite on five steps, five techniques.

a-2/Sambon Kumite: Kumite on three steps, three techniques.

a-3/Ippon Kumite: Kumite on a step, a technique.

1-2-Goshin-Kumite: with self-defense movements.

1-3-Yakusuku-jiyu-kumite:

1-3-a/ Jiyu-ippon kumite.

1-3-b/Kaeshi-ippon kumite.

1-3-c/Okuri-ippon kumite.

1-4-Oyo kumite:

1-4-a/ Kata kumite: (bunkai-kumite) application of the movements of the katas.

4-b/Happo-Kumite: execution against eight opponents

1-5 Kumite kata: working with short fractions partner of kata.

2- Jiyu-kumite (free assaults):

2-1/ Renshu-kumite: assaults in free form without judge and arbitrator.

2-1-a/ Shizen-kumite: combat in a natural way, run freely and smoothly without will to score points.

2-1-b/Tanshini-kumite: simplified combat techniques voluntarily limited

2-2- Shobu-kumite: free (unconventional) and flexible combat

2-2-a/ Shiai-kumite: game within the framework of the dojo with restrictive rules which are not those of the competition.

2-2-b/ Kyogi-kumite: sport competition.

3- Jissen-kumite: this is the ultimate approach to real combat in the most realistic form possible.

3-1- Goshin-kumite: refers to the study of self-defense techniques or even realistic forms of controlled free combat.

3-2- Bogu-kumite: assaults between two combatants wearing protections.

3.3. Evolution of the Kumite regulation:

The rules of the competition have evolved with the evolution of this practice itself. The goal is to always make the various actions of attacks and blocking and counter-attacks less dangerous, that is to say at the end of the compulsory control of techniques. The main stages in the development of the regulation are as follows:

1 / the system:

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• Ippon = 10 points
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- Wazari = 07 points
- Haunt = 05 points
- Hikiwake = 0point

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2 / The system:
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- 03 points or 06 Wazari¹¹
- Ippon = 01 point

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- Wazari = 1 / 2point
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3 / The system:
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- Sambon (03 points)¹²

- Sambon (03 points): Head kicks and techniques given to the opponent on the ground following a sweep.

- 02points: kicks on the body. With fist on the back. Sequence of two effective fist techniques.

-01point: other blows made with the hands.¹³

4 / The system:

- Ippon: (03points)

- waza-ari: (02points)

- Yoko: (01point)

These are the regulations adopted for the 2012/2013 season¹⁴

- Jodan kicks

- Any valid technique performed on an opponent on the ground, whether he was thrown, swept, or fell by his own fault. Waza-ari (02points) is awarded for:

- CHUDAN kicks (medium level)

- Yuko (01point) is awarded for:

- Jodan or chudan tsuki (including techniques performed in the ground)

- Jodan or chudan uchi. We can establish the following observation for the different regulations above:

a / the capital importance given to the strict control of jodan attacks (blows to the head and to the blow) however this control is compulsory only for the punches attacking them legs are rather valued three points.

B / The three-point valuation of techniques or attacks of jodan legs and post-sweeping or fall strikes of the opponent.

Definitions of performance:

Definition of Lp. Matveiev:

"A sports performance highlights the aptitudes of an athlete in a given sport and allows them to be assessed according to known criteria (goals, points, or even measures of distance, time, weight, etc.). Sports performance remains in any case a phenomenon with multiple aspects, a certain number of factors directly or indirectly

affect its progress: the individual gifts of the athlete and his degree of preparation, the effectiveness of the training, its content, its organization, material and technical conditions, the impact of the sports movement in the general social framework"¹⁵

Definition of Veronique Billat:

Consider different approaches to performance, in this case; the bioenergetic, psychological, biomechanical, sociological, cognitive approach. However, there is an essential consideration for the energy approach without being exclusive.¹⁶

"The concept of performance is inherent in competitive practice. It can be defined as the level of athletic achievement that the individual is capable of producing at a given time. The training aims to offer the athlete the possibility of achieving the highest level of performance, through an analysis of its constitutive factors and the implementation of actions to improve them. "¹⁷

Sports performance is the result of a plurality of factors (techniques, cognitive tactics, physical condition, psychic capacities, social capacities, constitutional and medical factors), which must be developed harmoniously and with all the complexity that the process implies in order to achieve an optimal level of individual performance.¹⁸

Definition of Weineck:

Sports performance is the result of a plurality of factors (techniques, cognitive tactics, physical condition, psychic capacities, social capacities, constitutional and medical factors), which must be developed harmoniously and with all the complexity that the process supposes in order to achieve an optimal level of individual performance

Definition by Didier Reiss and Pascal Prevost:

"You cannot expect to achieve performance at any level without investing in three pillars:

1- The physical aspect

2- The neurophysiological aspect

3- The cognitive aspect

At the center of this "triptych" complexity, which is an aspect which gives the possibility of finding solutions "

"Sports activity has two aspects: the improvement of skills and the production of services. It results in sports performance, the level of which depends on several factors ... Preparation for sports performance is a complex process in which training takes place. athlete proper, and all the conditions in which the athlete evolves "¹⁹ For certain heights, the analysis of the concept of performance brings out five approaches²⁰:

1. The biological approach:

-morphological qualities.

-the general and special physical qualities.

-bioenergetics factors.

2. The psychomotor approach.

3. The sociomatrix approach.

4. The psychosociological approach.

4. The systems approach.

The Japanese approach to performance in martial arts:

"Effectiveness in the practice of martial arts is achieved by the implementation of the three elements: in Japanese literature there is; the bodily elements (tai), the technical aspect (ghi), and the mental component (shin).²¹

For DR.W. Dexter Shim, the elements of fitness and performance in karate are twofold:

1-the physical aspect: which includes strength, speed, power, agility, balance, flexibility, endurance and coordination.

2-the mental aspect: which includes attitude, motivation, goals, human skills, internal dialogue and mental imagery, management of anxiety, emotions and concentration.²²

The factors of performance in karate:

For Mathieu Fourré, these factors are numerous and different depending on the orientation of competitive practice, kata or kumite. However, it highlights a few according to their importance, so we have:

A / technical mastery.

B / physical capacities.

C / the morphological characteristics of the athlete.

D / experience and tactical choices.

E / psychological conditions such as (self-confidence motivation).

F / the ability to perceive and anticipate the actions of the opponent are all factors to be taken into account in guiding training ".²³

In this research work we are interested in two aspects, technical and tactical

Technical mastery:

Definition: "this is the teaching at the technical level of actions to be carried out during competitions or actions used during training and improvement ... it is the search for mastery in a given sport that specifies it. technical preparation. "²⁴

Platonov reports on G. Chtark. 1971 that one can distinguish several stages in the process of acquiring and perfecting sports mastery:

1st step: assimilation of the movement; the training of basic knowhow.

2nd step: the perfect execution of the driving action.

3rd step: completion of motor habit training.

4th step: this is the stage of the acquisition of variability. It is the efficient realization of the movement under as varied conditions as possible.²⁵

In the same context and according to V.D. Moznichenko (1976) reports Platonov that the process of technical improvement can be broken down into elements that are both autonomous and closely related, and he distinguishes three stages:

1-primary learning: corresponding to the first two stages described.

2-deep learning: corresponding to the third stage.

3-consolidation and continuous improvement, corresponding to the fourth stage.²⁶

Technical classification in karate-do:

The technical arsenal in karate-do is very important however the use of the different technical forms always depends on the regulations governing the competition, in particular kumite. In fact, there are several attack and defense techniques that are not counted in combat and even their use is sanctioned. In general, the techniques are classified as follows:

1) attack and counterattack techniques:²⁷

- ✓ Tsuki Waza (direct hits upper limbs):
- ✓ Choku-zuki (direct hit).
- ✓ Tate-zuki (vertical blow).
- ✓ Ura-zuki (close shot).
- ✓ Age-zuki (remantant blow).
- ✓ Mawashi-zuki (circular stroke).
- ✓ Seiken-ago-uchi (bouncing kick).
- ✓ Oi-zuki (chasing blow), Jun-zuki, jun-zuki-no-tsukkomi.
- ✓ Tobikonde-oi-zuki (leaping blow).
- ✓ Mai-te (front punch).
- ✓ Tobikomi-zuki (sliding stroke)

- ✓ Kizami-zuki (profile point shot).
- ✓ Nagashi-zuki (dodge move)
- ✓ Gyaku-zuki (opposite shot).
- ✓ Kagi-zuki (hook stroke).
- ✓ Morote-zuki (double hit), Heiko-zuki, awaze-zuki, yama-zuki.
- ✓ -Ushi Waza (indirect blow- upper limbs):
- ✓ Uraken-uchi (backhand stitches).
- ✓ Tettsui-ushi (blow of the iron hammer).
- ✓ Shuto-ushi (hand sword stroke).
- ✓ Haito-ushi (internal saber stroke).
- ✓ Taisho-ushi (palm stroke).

✓ Empi-ushi (nudge), this attack can be performed in Mae, Yoko, Ushiro, Tae, and finally Otoshi.

- ✓ Keri Waza (kicks):
- ✓ Mae-geri (direct hit), keage, kekomi, tobikonde, kin.

 \checkmark Yoko-geri (lateral chased), keage, kekomi, kansetsu, fumikomi, sokuto.

✓ Mawashi-geri (circular stroke).

✓ Ushiro-geri (backstroke). keage, kekomi.kake.

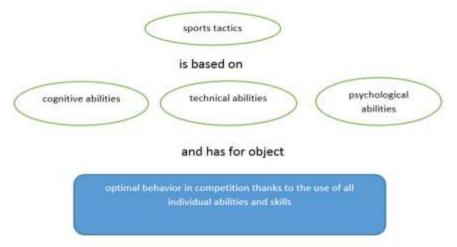
- ✓ Mikatsu-geri (crescent stroke).
- ✓ Ura-mawashi (backhand whip).
- ✓ Tobi-geri (jump kick).
- ✓ Hitssui-geri (knee up).
- 2) defense techniques:

- ✓ Uke Waza (blockages)
- ✓ Kawashi Waza (dodges)
- ✓ Nage Waza (projections)
- 3) combined techniques: Menzokuwaza
- 4) different positions:
 - ✓ Defense positions
 - ✓ Combat positions

Experience and tactical choices:²⁸

The tactic is: "the rational behaviour, regulated by the athlete's own and the opponent's ability to perform, as well as by the external conditions in an individual or team sport encounter (Cf. Zech 1991,494)

Plot of the factors of sports tactics:



In karate we can classify combat tactics into four types - this classification is made according to practitioners through the observation of combative actions and interactions:

1 / the "SEN" or anticipation initiative first, take an attack initiative, a feint followed by an attack or a sequence depending on the situation.

2 / the "GO.NO.SEN" or delivery of an initiative; the defensive engagement takes place during the opponent's attack and the counterattack is immediate.

3 / the "TAINO.SEN" against the initiative; counterattack and attack occurring simultaneously.

4 / the "SEN.NO.SEN" move ahead of an initiative; the attack occurs before that of the opponent takes shape and even at the limit.

In sports karate the goal is to win by scoring points, or by presenting the best performance in kata. The issue goes beyond the personal framework sometimes to a team or even a national framework. It is political, social, educational and in many cases it becomes commercial. The former masters of karate, rejecting the idea of making the practice sporty, may have feared the deviations that can occur during the path of the "do" the "way" as well as reaching the highest and most total of personalities.²⁹

The indirect approach or (traditional approach) of kumite: This approach works in two ways:

1- Through the katas that is to say bunkai-kata which applies either for self-defense or for sports kumite:

Definition of bunkai: Bun: fragment; Kai: analysis

"It is the interpretation of a martial art technique from the kata in its various forms of practical application"³⁰

"Bunkai is the principle of applying the different techniques and sequences contained in the kata. Which seems obvious at first glance:

that is to say, a succession of blocks and counter-attacks supposed to apply to real combat, it is less when it comes to decoding the whole

to obtain realistic sequences; that is to say satisfactory from the point of view of effectiveness in martial combat "³¹

Sports kumite: is a relatively new form that attempts to adapt different situations and combinations of katas to achieve developmental kumite

goals. This process does not always follow a practical logic; however, many coaches try to integrate it into the kumite preparation system.

2- Through the traditional forms of approach to kumite adopted by karate masters and performed gradually in order to achieve "improvement" in sports kumite:

The indirect approach of the master HIROKAZO KANAZAWA:³²

Kumite is divided into two parts:

1-YAKUSOKU-KUMITE: the attack techniques and the level of work are determined in advance, we can distinguish:

- a) Kumite mainly focused on basic training.
- b) Kumite aimed at the correct execution of techniques

c) The Kumite to acquire the most important elements of the fight: timing, distance movements, etc ... we distinguish:

- TANREN KUMITE: work on body shape and physical and mental preparation as well as movement techniques combined with breath control Tanren kumite includes:

GOHON KUMITE:" this basic form of training in fundamental techniques teaches MIGAMAE (physical readiness). KIGAMAE (mental preparation), ways of breathing and UNSOKU (moving and stepping)

The attacker repeats the same attack five times whether JODAN or CHUDAN. The defender uses the blocking technique five times counter-attacking after the last one."

SAMBON KUMITE:" like Gohon kumité it is a fundamental training to acquire these important factors: MIGAMAE, KIGAMAE, UNSOKU, breathing and physical power. Here three attacks are performed consecutively with a different technique at a different level. The defender block with three different techniques."

-KHION KUMITÉ: learn the different positions while performing the fundamental techniques, Khion Kumité includes:

Kihon Ipon Kumite:"to learn correctly a group of exercises of SABAKI (stepping and dodging) and different positions and basic techniques of attack and defense(KIHON)"

KAESHI IPPON KUMITE:" basically the aim of this kumite is the same as the Kihon Ipon Kumite they belong to the same group"

-YAKUSOKU JIYU KUMITE: unlike the previous ones, this Kumite is performed in a more realistic way; arbitrary distance, combat intuition. Yakusoku jiyu Kumite includes:

JIYU IPPON KUMITE:" to apply in a more practical and more efficient way the UNSOKU and the accurate techniques of attacks and blicks acquired in the KIHON IPPON KUMITE and KAESHI IPPON KUMITE and the physical and mental qualities with the steady positions and fundamental techniques practiced in GOHON KUMITE and SAMBON KUMITE, it will prepare for the following JYU KUMITE"

OKURI JIYU IPPON KUMITE:" this kumite belongs ti the same group: YAKUSOKU GIYU KUMITE. The execution is identical to JIYU IPPON KUMITE. However, after the counter-attack, the attacker executes a second attack (OKURI: to give back, to return) without warning, the defender in free style stance after the counterattack, must be ready physically and mentally to face all possibilities to enable him to counter-attack a second time."

- OYO KUMITE: includes HAPPO kumite and GATA kumite: HAPPO KUMITE:

Here the defense and the attack is done successively against eight adversaries who surround him. (The word HAPPO meaning the eight main directions). In the other forms the attacked faced only one opponent (TANREN. KIHON. YAKUSOKU and JIYU KUMITE)

2-JIYU KUMITE: this is the last stage of Kumite, there is no prior agreement, however there is total control of the attacks JIYU KUMITE includes:

KYOGI KUMITE and SHIAI KUMITE: "actual combat (SHIAI) as such, has no place in KARATE-DO which is the way of the martial arts. Instead, we have SHIAI KUMITE or (contest combat) which, while paradoxical, gives the participants a testing ground to match their skills competitively, in order to evaluate their mental, physical, and technical aspects freely, thus acquiring the real efficiency they require in an actual encounter.

The direct approach to kumite:

The new educational trend of karate consists in taking charge of training exclusively by the method of games (especially for children), and the use of protective material (bust protector, foot protector, shin protector, mouth protector, helmets, ...). Also the use of integrated preparation material, examples: PAO, cersals, ropes, ladder, dolls, ... The methodological approach operates in a direct way without going through the first traditional levels of preparation for kumite, namely:

- ✓ Gohon Kumite
- ✓ Sambon kumite
- ✓ Kihon ippon kumite
- ✓ Kaeshi ippon kumite

All of these forms of kumite are generally overlooked in the modern approach to kumite training, the new trend seeks to - save time - and effort by going straight to the point according to its followers. The steps mentioned above are considered by karate masters to be fundamental for the acquisition and flawless improvement of a fulfilled athlete profile both physically, technically and mentally.

Analysis and conclusion:

We hypothesized that "traditional forms of kumite are essential in order to harmonize the multifaceted development of karateka".

It is necessary to take into consideration here the practice of karate as karate-do not in the sense that it is deprived of this "do" of this way which characterizes all the martial practices of Japan. The founder of

modern karate Gichin funakoshi was adamant about the sportivation and commercialization of this martial art; however, by force of circumstances karate has become a combat sport and an art of exhibition (katas and kata bunkai). There is another factor that adds up, which is commercialization either in the real sense of the word or in the moral, ideological or even political sense. All this amalgamation of factors obviously contributes to radical changes that are sometimes harmful to the spirit of this discipline which is Budo.

Kumite in itself is a form of expression of kata in the classical view of karate but the demands of performance sometimes do not allow to follow the route traced by the traditional forms of this practice; to conclude:

- Kumite is the real application of kata.
- So the practice of kata should be essential.
- The traditional forms of kumite are basic means for the harmonious development of the practitioner.
- The factors of performance are closely linked to technical mastery, itself conditioned by the four stages of the process of acquiring and perfecting sport mastery according to G. Chtark. 1971.
- These factors are also conditioned by experience and tactical choice. The Japanese approach to performance indicates that: "Effectiveness in the practice of martial arts is achieved by the implementation of the three elements: in Japanese literature there is; the bodily elements (tai), the technical aspect (ghi), and the mental component "

Finally, we ask the following questions requiring a deepening of the approach vision of sports kumite in karate-do:

- Isn't karate a practice of life that is not limited by the age factor?
- Isn't sports competition a relatively short stage in the practitioner's life?

- Shouldn't the pre-competition be a factor in the preparation of the competition period and afterwards?
- Does not the failure to rationally take charge of the initial stage risk having negative repercussions on others?
- Shouldn't the modern approach to kumite operate in parallel with the traditional approach with adequate dosages according to the age and level of qualification of the athletes?
- Does not neglect of traditional work risk hampering the technical and psychological development of the athlete, especially in the passing of grade or when the latter is moving towards refereeing?

All of the arguments and questions cited above can provide a platform for further discussion and research in the very broad field of martial arts and in particular karate. This discipline which originated on an island between the Pacific Ocean and the Chinese Sea and has spread to the four corners of the globe to conquer the hearts of hundreds of thousands of followers.

Bibliographical references:

1- Hamida Khaled-Détermination de modèles technico-tactiques pour les athlètes de haut niveau à travers l'observation simple et appareillée en karaté-do. Thèse de doctorat,2015.

- 2- Gichin Funakoshi l'essence du Karaté-do, Ed Budo, 2012.
- 3- Gabrielle & Roland Habersetzer- encyclopédie des arts martiaux
- de l'extrême orient.@mphora2004.
- 4- https://www.karate-tourny27.fr
- 5- M.Nakayama -Best karate Kumité 2. Paris : Vigot, 1999.
- 6- Hirokazu Kanazawa S.K.I Kumité Yohan. Sedirep, 1987.
- 7- Hasu Sakugara & Enzan Yamagushi-Manuel du karaté-do. Jujitsu
- kyu Toronto central région.
- 8- Roland Habersetzer -découvrir le karaté. Paris : @mphora.1991
- 9- <u>http://karatekas-ch.ma</u>.

10- Mathieu Fourré-Le karaté préparation physique et performance. INSEP Pub.2003.

11- Règlement de compétition et d'arbitrage.www.ffkaraté.fr.

12- VéroniqueBillat-physiologie et méthodologie de

l'entrainement. Paris : Deboek supérieur,2017.

13- T Deshimaru. Zen et arts martiaux. Coll. spiritualités vivantes.

Série Bouddhisme. Paris : Albin Michel, 1983.

12-حسن احمد الشافعي وسوزان مرسي ـمبادئ البحث العلمي في التربية البدنية والرياضية. الاسكندرية: منشاة المعارف:1995.

Références

² Gichin Funakoshi : l'essence du Karaté-do, Ed Budo, 2012.p.102 تحسن احمد الشافعي وسوزان مرسي مبادئ البحث العلمي في التربية البدنية والرياضية.

الاسكندرية: منشاة المعارف، 1995، ص، 101.

⁴ Gabrielle & Roland Habersetzer- encyclopédie des arts martiaux de l'extrême orient, @mphora2004. p. 401

⁵ https://www.karate-tourny27.fr

⁶ M.Nakayama -Best karaté Kumité 2. Paris : Vigot, 1999, p. 14.

⁷ Hirokazu kanazawa - S.K.I Kumité Kyohan. Sedirep , 1987, p. 19.

⁸ **Hamida Khaled**-Détermination de modèles technico-tactiques pour les athlètes de haut niveau à travers l'observation simple et appareillée en karaté-do. Op.cit. p.56

⁹ Hasu Sakugara & Enzan Yamagushi-Manuel du karaté-do. Jujitsu kyu Toronto central région, p.05.

¹⁰ **Roland Habersetzer**. Encyclopédie des arts martiaux. Paris.@mphora .2004.p.402

¹¹ Roland Habersetzer - découvrir le karaté Paris : @mphora.1991. p.109.

¹² http://karatekas-ch.ma.

¹³ **Mathieu Fourré**-Mathieu Fourré-Le karaté préparation physique et performance. INSEP Pub.2003, p. 15.

¹⁴ Règlement de compétition et d'arbitrage saison.<u>www.ffkaraté.fr.</u> 2012/2013, p. 110

¹⁵ LP Matveiev. Aspects fondamentaux de l'entrainement. Paris : Vigot, 1983, p.16.

¹⁶ Véronique Billat- physiologie et méthodologie de l'entrainement. Paris : : deboek supérieur,2017,p.09

¹ **Hamida Khaled**-Détermination de modèles technico-tactiques pour les athlètes de haut niveau à travers l'observation simple et appareillée en karaté-do. Thèse de doctorat,2015, p.55

¹⁷ Mathieu Fourré-Le karaté préparation physique et performance. INSEP Publications, 2003, p.20.

¹⁸ Jürgen Weineck-Manuel de l'entrainement. op.cit. p.21.

¹⁹ Vladimir Nicolaivitch Platonov- L'entrainement sportif théorie et méthodologie. Ed. Revue EPS.P.12.

²⁰ Bouzid Drissi. Caractéristiques morpho-fonctionnelles et technico-tactiques de la perfomance.Doctorat 2003/2004

²¹ Rolland Habersetzer. Entrainement préparatoire et complémentaire aux arts martiaux. Collection sport et loisirs. 1996, p.16.

²² Dexter Shim.la science et l'entrainement de karaté.IKD.2012, p.03.

²³ Mathieu Fourré-Le karaté préparation physique et performance. op.cit. p.20. ²⁴ LP Matveiev. Aspects fondamentaux de l'entrainement. op.cit. p.88.

²⁵ Vladimir Nicolaivitch Platonov-L 'entrainement sportif théorie et méthodologie. op.cit. p.105.

²⁶ Vladimir Nicolaivitch Platonov-ibid.

²⁷ Roland Habersetzer. Le nouveau guide Marabout du karaté. op.cit. p.108.

²⁸ Jürgen Weineck-Manuel d'entrainement. op.cit. p.447.

²⁹ T Deshimaru. Zen et arts martiaux. Coll. spiritualités vivantes. Série Bouddhisme. Paris : Albin Michel, 1983. p.17.

³⁰ Roland Habersetzer-Encyclopédie des arts martiaux. Paris :@mphora.2004.p.332.

³¹ Emanuel Akerman-Karaté Bunkai-katas. Paris :@mphora.2007.p.41.

32 HIROKAZO KANAZAWA. S.K.I. Kmite kyohan. France.SEDIREP.1987.p.17.