

The Impact of Using Attack Combinations on the Skill Performance of Kung Fu Sanda Athletes

Prof. Essmat Mohamed Said

Department of Compete & Individual
Sports Training -Faculty of Physical
Education for Girls- Helwan University

dresmetsaied47@gmail.com

Assoc.Prof. Abdel Latif Sayed Abdel Latif

Assistant Professor- Department of
Curriculum and Teaching Methods-
Faculty of Physical Education for Men-
Helwan University

abdellatef1966@gmail.com

Mervat Fathi El-Sayed

mervat.elsebaay80@gmail.com

Abstract:

This research aims to explore the effectiveness of using a proposed training program that incorporates offensive tactics for Kung Fu players and its impact on skill performance, including offense, defense, and counter-offense, using techniques of punching, kicking, and throwing. The researcher employed an experimental approach with a single experimental group using both pre-test and post-test measurements, given its suitability for the research nature. The research population consisted of junior Kung Fu players aged 14-16 registered with the Egyptian Wushu Kung Fu Union at El-Geish Sports Club during the 2022-2023 sports season, with a total of 16 players. The sample was deliberately selected from Kung Fu players within the same age range, resulting in a main sample of 8 junior players representing the experimental group that underwent the virtual reality program. The survey sample and normalization sample for scientific calculations included 8 players from the research population but outside the main sample. Based on the research goals, methodology, and the collected data analyzed statistically, the researcher concluded that the proposed training program utilizing offensive tactics has a positive impact on the specific skill variables of Sanda players. The offensive tactics training exercises for Sanda have contributed positively to all skill variables under investigation, including kicking, punching, and throwing. In light of the study's objectives and findings, the researcher recommends incorporating the offensive tactics program into club training to enhance skill variables for both Sanda players and Kung Fu athletes

Keywords:

- Training, Kung Fu, Athletes, Skill Performance

تأثير استخدام اساليب هجومية على مستوى اداء لاعبي الساندا فى الكونج فو

الخلاصة :

يهدف هذا البحث إلى التعرف على فاعليه استخدام برنامج تدريبي مقترح للجمل الهجوميه لدي لاعبي الكونج فو وتأثيره علي الاداء المهاري ويشمل (الهجوم والدفاع والهجوم المضاد) باستخدام تقنيات اللكم والركل والطرح ، المتغيرات المهاريه وتشمل الهجوم والدفاع و الهجوم المضاد والخداع الهجومي باستخدام تقنيات الركل واللكم والطرح. ولقد استخدمت الباحثة المنهج التجريبي باستخدام مجموعة (تجريبية) واحده بأسلوب القياس القبلي والبعدي وذلك نظرا لملائمته لطبيعة البحث، وتمثل مجتمع البحث في لاعبين ناشئين الكونج فو وذلك للمرحلة العمرية (١٤-١٦) سنة والمسجلين بالاتحاد المصري للووشو كونج فو، بنادي الجيش الرياضي خلال الموسم الرياضي ٢٠٢٢-٢٠٢٣م، وتراوح عددهم إلى (١٦) لاعب. وتم اختيار عينه البحث بالطريقة العمدية من لاعبي الكونج فو وتراوح أعمارهم من (١٤ - ١٦) سنة والبالغ عددهم (١٦) لاعب ، حيث بلغ قوام العينه الاساسيه للبحث (٨) لاعبين ناشئين يمثلون مجموعه البحث التجريبيه التي طبق عليها برنامج الواقع الافتراضي ، و بلغت العينه الاستطلاعيه وعينه التقنين لحساب المعاملات العلميه (٨) لاعبين من مجتمع البحث وخارج العينه الاساسيه . في ضوء أهداف وطبيعته البحث وفي حدود عينه البحث والمنهج المستخدم ومن واقع البيانات التي تم جمعها ونتائج التحليل الإحصائي توصلت الباحثة إلى الاستنتاجات التالية: أن استخدام البرنامج التدريبي المقترح بالجمل الهجوميه له تأثير إيجابي علي المتغيرات المهاريه الخاصه للاعب الساندا، تدريبات الجمل الهجوميه الخاصه برياضه الساندا كان لها دور في التغير الايجابي علي جميع المتغيرات المهاريه قيد البحث (الركل واللكم والطرح)، تدريبات الجمل الهجوميه الخاصه برياضه الساندا كان لها دور في التغير الايجابي علي جميع المتغيرات الخططيه قيد البحث (الهجوم . الدفاع . الهجوم المضاد). وفي ضوء الإجراءات التي تمت في هذه الدراسه توصي الباحثة بالآتي: الاستعانه بتدريبات برنامج الجمل في تحسين المتغيرات المهاريه

للاعبين ولاعبات الساندا في خطه الانديه الرياضيه، الاستعانه بتدريبات برنامج الجمل الهجوميه في تحسين مستوى الاداء المهاري للاعبين ولاعبات الكونغ فو الساندا، الاستعانه بتدريبات برنامج الجمل الهجوميه في تحسين المتغيرات الخططيه (الهجوم . الدفاع . الهجوم المضاد) للاعبين ولاعبات الكونغ فو ساندا.

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The Introduction and Research Problem:

In recent years, the sport of Kung Fu has witnessed significant scientific advancements worldwide, particularly in various aspects related to athletes. This has led to changes in offensive and defensive playing styles, similar to other sports.

As mentioned by "Ahmed Mahmoud Ibrahim (2013), the more diverse the preparation and execution areas on the mat, the more opportunities there are for executing offensive or defensive strategies during matches, resulting in scoring points. This becomes an advantage for the player who can efficiently plan and execute their tactics during gameplay, given the numerous preparation areas on the mat within the match's time frame. The player's movement steps play a crucial and effective role in increasing the quantity of preparation areas on the mat (39:2).

The researcher believes that understanding the offensive tactics of Kung Fu Sanda athletes can offer a new approach to enhancing their systematic training condition. This can be achieved by considering various divisions (spatial, temporal, and offensive entries) and creating a set of strategic offensive tactics for the players. These tactics should cover all areas of the field, different time periods during the game, and the varying weights of the players.

Through the analysis of matches in the World Youth Championship, the researcher identified certain issues affecting players' skill performance, particularly in their offensive capabilities. It was found that many players lack

a sufficient repertoire of offensive plans, which ultimately impacts their performance in matches. Given that international and global competitions require well-rounded players with a high level of experience and quick offensive and defensive reactions, this deficiency presents a significant challenge for the athletes.

The researcher identified the necessity of developing a program that represents the reality of competitions, incorporating offensive tactics to enhance the athletes' systematic training condition.

Based on the researcher's experience in coaching and officiating in Wushu Kung Fu, the idea for this research emerged. The researcher intends to design a proposed training program using offensive tactics in the field of Kung Fu. This program will involve creating tactical plans for both offensive and counter-offensive techniques, employing Sanda techniques such as kicking, punching, and throwing.

The aim is to equip the athletes with a comprehensive set of appropriate reaction skills based on changing situations, in the context of offensive tactics and their impact on the skill performance of Sanda athletes.

Research Importance:

1. This research represents a new scientific addition in the field of Kung Fu training through the use of offensive tactics to enhance the skill performance of Kung Fu athletes.
2. The findings of this research may contribute to the development of training programs in Kung Fu (Sanda) in sports clubs and specialized sports education colleges, aiming to elevate the level of the players.

Research Objectives:

The objective of the research is to assess the effectiveness of a proposed training program for offensive tactics among Kung Fu athletes and its impact on the following skill variables, including offense, defense, counter-offense, and deceptive attacks. These variables encompass techniques such as punching, kicking, and throwing, specifically:

- The effectiveness of the program on skill variables like offense, defense, counter-offense, and deceptive offensive techniques using kicking, punching, and throwing techniques, including straight

punching (Chun Chuan), hook punching (Chao Chuan), front half-circle kick (Bian Tuai), front straight kick (Dang Tui), side kick (Chao Ei Tui), leg grab and throw (Bao Tuai Kian Dang Shuai), and leg half-circle grab and throw (Jai Tuai Hao Tai Shuai).

Research Hypotheses:

1. There are statistically significant differences between the pre-test and post-test measurements in assessing the offensive and defensive skills, meaning the skill performance, in favor of the post-test measurements for Kung Fu Sanda athletes.
2. There are improvement rates between the pre-test and post-test measurements in skill performance in favor of the post-test measurements for Kung Fu Sanda athletes.

Terminologies used in the Research:

1. Offensive Tactics:

Procedural Definition: Sudden, forceful attack characterized by speed and power to decisively win a match or overcome resistance with the aim of winning the match.

2. Skill Performance:

It is a specific system of movements performed simultaneously and sequentially. This system organizes the effective coordination of internal and external forces that influence the athlete, aiming to fully and efficiently exploit them to achieve the best sports results. It refers to the players' level and their mastery of the skills encompassed by the game. Moreover, it denotes the ideal representation of artistic performance and the effective way to execute a specific motor task (3:41).

Procedural Definition:

It is the process of preparing players to reach the highest degree or rank of motor skills, ensuring that they are performed with the utmost efficiency, precision, fluidity, and motivation allowed by their capabilities during sports competition, with the goal of achieving optimal results while economizing effort.

3. Kung Fu (Wushu Kung Fu):

As defined by Yahya Fawzi (2005): A combat sport originating in China, consisting of two segments – "Wu" (art) and "Shu" (combat). The term "Kung Fu" refers to skill. (11:35)

4. Sanda (San Shou):

An encounter between two players using kicking, punching, and throwing techniques, played in two or three rounds. In the event of a tie, each round lasts two minutes, with a one-minute break in between. (11:38)

5. Most Used Skills:

These are the skills most frequently employed during matches, regardless of whether they result in scoring points. (10:20)

6. Most Effective Skills:

These are the skills that lead to scoring points or, at times, even to technical superiority, which can result in ending the round, even if its allotted time has not expired. (10:20)

Previous and Related Studies:

1. **Ahmed Yahya Fawzi (2019)** conducted a study on "the impact of using tactical maps for certain skills on the performance level in Kung Fu "Sanda." The study aimed to design a proposed tactical program and assess its effect on some fitness elements, tactical performance level, and skill performance effectiveness for Kung Fu Sanda players. The researcher used a pre-test and post-test measurement design on a purposive sample of Sanda players under 20 years of age, with a total of 20 players. The key findings indicated that the proposed program had a positive effect on improving physical fitness elements, tactical performance level, and skill performance for the study sample.(4)
2. **Ahmed Khamees Abdelhameed (2014)** conducted a study titled "The Effect of Offensive Construction Strategy within the Training Unit Structure on the Effectiveness of Tactical Activity Indicators for Kumite Players in Karate." The study aimed to investigate the impact of the offensive construction strategy within the training unit structure on the effectiveness of tactical activity indicators for kumite players in the

sport of karate. The researcher utilized the experimental approach, employing a single-group pretest-posttest design. The primary experimental sample consisted of three players. The researcher used evaluation forms for both tactical and skill performance effectiveness. The results indicated that the proposed training program, using the offensive construction strategy within the training unit structure, had a positive effect on the effectiveness of tactical activity indicators in kumite. (1)

3. **Alaa Hamdi Azzam (2014)** conducted a study titled "The Impact of Using Offensive Movement Phrases on Developing Some Attack Indicators for Juniors under 12 Years in Kumite Karate Competition." The study aimed to explore the effect of using offensive movement phrases on developing certain attack indicators for juniors under 12 years in kumite karate competition. The researcher employed the experimental approach on a single experimental group using pretest-posttest measurements. Research tools included measures of offensive performance effectiveness, a medical scale, a respirometer, a stopwatch, adhesive tape, and Swedish benches. The study, conducted on a sample of 20 karate players under 12 years, revealed statistically significant differences between pretest and posttest averages favoring posttest measurements. The use of offensive phrases led to the development of attack indicators in karate players under 12 years. (6)
4. **Mohamed Labib Abdel Aziz (2012)** studied "tactical maps used by players in actual combat (Kumite) in Karate as a program planning guide". The study aimed to understand the impact of training on tactical maps for Kumite players. The descriptive approach was used, and the sample size included 100 international-level players and 138 local-level players, selected through purposeful sampling from international and Egyptian federation competitions. The results indicated differences between international and local-level players in favor of the international level in most of the offensive activity determinants (components of tactical maps), including timing of attacks, executed skill style, number of preparation steps for the attack, and the effectiveness of offensive activity during the match.(8)
5. **Nasser Mohamed Helmy (2014)** conducted a study on "the impact of developing specific motor skills for counter-offensive attacks on the quantitative effectiveness of offensive activity for Kung Fu Sanda players". The study aimed to assess the effect of developing specific

motor skills for counter-offensive attacks on the quantitative effectiveness of offensive activity for Sanda players in Kung Fu. The research sample consisted of 10 Sanda players who were champions at the national level in the U19 category. The study found that the program had a positive impact on improving the level of motor skills and the quantitative effectiveness of offensive activity for these players.(10)

6. **Tablo and Others (2006)** conducted “an analytical analysis of some defensive techniques used by karate players”. The researcher employed a descriptive approach, suitable for the nature of the research. The research sample included 90 matches, with players divided into light, medium, and heavy weights. Among the most significant results obtained were statistically significant differences between the defensive techniques used and the offensive skills in the game among different weight categories, favoring the lightweights. Additionally, there were statistically significant differences between the offensive techniques used among different weight categories, also favoring the lightweights (12).

Research Procedures:

1. Research Methodology:

The researcher employed an experimental methodology using a single group (experimental group) with pre-test and post-test measurements due to its suitability for the nature of the research.

2. Research Community and Sample:

1- Research Community:

The research community consists of Kung Fu players in the age range of 14-16 years who are registered with the Egyptian Wushu Kung Fu Union during the sports season (2022-2023). The total number of youth players is 16.

2- Research Sample:

The research sample was selected purposively from Kung fu players aged 14-16, totaling 16 players from El-Geish Club. The main research sample included 8 youth players representing the experimental group on which the virtual reality program was applied. The supplementary sample and the standardization sample for scientific calculations comprised 8 players from the research population but outside the main sample.

3- Sample Selection Criteria:

- 1- Players must be registered with the Egyptian Wushu Kung Fu Union.
- 2- Player ages must fall within the range of 14-16 years.
- 3- Players must consent to participate in the research group.
- 4- Players must attend training sessions and implement the program.
- 5- The minimum training duration for players should be 7 years.
- 6- Players must hold a red belt.

Table (1)
Description of the research sample

m	Statement	The total sample	percentage
1	research community	16 players	100%
2	Experimental group	8 players	50%
3	Survey sample	8 players	50%

Table (1) shows

Distribution of members of the research sample, the experimental group, the exploratory sample, and rationing

Statistical description of the basic sample:

The researcher verified the degree of moderation of the distribution of members of the basic research sample in light of the research variables.

Table (2)
The arithmetic mean, median, standard deviation, skewness coefficient For growth rates of the basic research sample

(n=8)

Variables	measuring unit	SMA	standard deviation	Mediator	less value	The greatest value	skewness
Age	year	15.300	0.674	15,000	14.00	16.00	-0.434
height	cm	165.9000	6.244	166,000	154.00	173.00	-0.560
weight	kg	58.600	11.701	58,000	45.00	80.00	-0.757
Training age	Year	8,000	0.666	8,000	7.00	9.00	0.000

It is clear from Table (2) that:

The skewness coefficients for the sample under study ranged between (-0.560: -0.757) in the growth variables under study, that is, they were limited to

(± 3), which indicates that it falls within the moderate curve, and thus the sample is moderately distributed, which indicates the homogeneity of the sample members under consideration. search.

Table (3)
Arithmetic mean, standard deviation, and skewness coefficient
For some of the skill variables under research

(n=8)

M	Variables	measuring unit	SMA	standard deviation	Mediator	less value	biggest value	skewness
1	Chunquan (straight punch)	degree	0.632	0.800	1.00	0.000	2.000	0.132
2	Zhao Quan (hook punch)	degree	0.632	0.800	1.00	0.000	2.000	0.132
3	Bayan Tuai (semi-circular front kick)	degree	0.000	1.000	1.00	1.000	1.000	.0014
4	Dang Tui (Straight Front Kick)	degree	0.738	0.900	1.00	0.000	2.000	0.166
5	Cho Ai Tui (side kick)	degree	0.568	0.900	1.00	0.000	2.000	-0.091
6	Bao Tuai Qian Dang Shuai (holding the legs and throwing to the ground)	degree	0.667	1.000	1.00	0.000	2.000	0.000
7	Gai Tuai Hao Tai Shuai (catch the semi-circular kick, drag and throw)	degree	0.422	0.800	1.00	0.000	1.000	-1.779

It is clear from Table (3) that:

All values of the skewness coefficients in the skill tests under study came between (-1.779, 0.166), that is, they were limited to between ± 3 , which indicates the fairness of the data in these tests.

Data Collection Tools:

A. Used Equipment:

- Stadiometer for measuring height (in centimeters).
- Medical scale for measuring weight (in kilograms).
- Kicking pad.
- Stopwatches.

B. Used Materials:

- Sanda mat (8x8).
- Stopwatch.
- Kicking pads.
- Sandbag (individual).
- Centimeter-graded measuring tape.
- Medicine ball.
- Headgear (protective headgear).
- Body protector (chest protector).
- Gloves.
- Gumshield (mouthguard).
- Abdominal guard (lower abdomen protector).

C. Forms:

- Expert opinion survey form to determine the most suitable skills under research. (Attached Form 2)
- Skill performance evaluation form for Kung Fu Sanda players prepared by the researcher. (Attached Form 3)
- Expert opinion survey form to determine the duration and components of the training program for Kung Fu Sanda players. (Attached Form 4)
- Personal data registration form for the players under research. (Attached Form 5)

Selection of Expert Panel and Their Criteria:

The researcher selected five experts in Kung Fu, introducing them to the research's significance and objectives and providing them with the information needed to respond to the opinion survey forms. These experts were chosen based on the following criteria:

- A minimum of 10 years of experience in practicing Kung Fu.
- A minimum of 8 years of experience in Kung Fu coaching.
- A black belt with at least a 2nd-degree ranking.

The scientific parameters for the skill tests under consideration in the research sample:

The scientific parameters for the physical and skill tests under consideration, aiming to ensure their validity and reliability for their application on the main research sample.

Validity Coefficients:

To ensure the validity of the skill tests, the researcher employed the reliability of differentiation to calculate the reliability coefficients of the skill tests under investigation. This was done by calculating the differences between a distinctive group and a non-distinctive group. Each group consisted of four players, totalling eight players from both groups. The tests were administered on the research sample and a non-sample group from the same research community and outside the primary research sample.

Skill variables under investigation:

The researcher conducted a survey of scientific references, previous studies, and reviewed information networks to identify the most important skill variables in the sport of Kung Fu Sanda. Additionally, the researcher sought expert opinions to determine the key skill variables in Kung Fu and identify the most suitable tests to measure these variables. The opinions of experts in the field of Kung Fu training and judging, totalling (10), were collected and presented to further enhance the understanding of these skill variables.

Table (4)

The arithmetic mean, standard deviation, and difference between the two means For the skill tests under investigation

Variables	Groups	middle	Total ranks	U	Z	P Probability of error
Chunquan (straight punch)	Distinctive (n=4)	Ranks	38.0	2.00	2.324	0.020
	Unmarked (n=4)	7.60	17.0			
Zhao Quan (hook punch)	Distinctive (n=4)	3.40	36.0	4.00	2.032	0.042
	Unmarked (n=4)	7.20	19.0			
Bayan Tuai (semi-circular front kick)	Distinctive (n=4)	3.80	37.5	25.00	2.449	0.014
	Unmarked (n=4)	7.50	17.5			
Dang Tui (Straight Front Kick)	Distinctive (n=4)	3.50	39.0	1.00	2.545	0.011

	Unmarked (n=4)	7.80	16.0			
Cho Ai Tui (side kick)	Distinctive (n=4)	3.20	36.0	4.00	2.032	0.042
	Unmarked (n=4)	7.20	19.0			
Bao Tuai Qian Dang Shuai (holding the legs and throwing to the ground)	Distinctive (n=4)	3.80	38.5	1.50	2.460	0.014
	Unmarked (n=4)	7.70	16.5			
Gai Tuai Hao Tai Shuai (catch the semi-circular kick, drag and throw)	Distinctive (n=4)	3.30	38.0	2.00	2.324	0.020
	Unmarked (n=4)	7.60	17.0			

It is clear from Table (4)

There are statistically significant differences between the distinguished and non-distinguished groups in all skill tests, in favor of the distinguished group, which indicates that the tests have an acceptable degree of validity.

Method of Evaluating Skill Performance Level and Grade Distribution:

The researcher formed a committee of referees affiliated with the Egyptian Wushu Kung Fu Federation (Sanda), holding an excellent first-degree degree, totaling (3), to assess the skill performance of players by demonstrating the most important Sanda-specific skills. Each skill is evaluated with three attempts, and the average of two grades is calculated for each skill, distributed as follows:

- The player could not gain points (ineffectiveness of performance), scored (0).
- The player gained one point, scored (1).
- The player gained two points, scored (2), in accordance with the legal rules of the International Sanda Federation (8).

The average grade for each skill in the three attempts is (2), with a total average skill score of (14) points for a total of (7) skills. The result of the effectiveness of the skill performance for each player is recorded through a form prepared by the researcher. Attached (3).

Reliability Coefficients:

To calculate the stability of the skill tests, the researcher administered the tests on Friday, April 1, 2022, to a sample from the research community and an outside non-sample group of eight youth players. The tests were then re-administered on the same sample on Friday, April 8, 2022, with a one-week interval. Correlation coefficients were calculated between the initial application and the re-application to determine the stability of these skill tests. The following table illustrates this:

Table (5)
Correlation coefficients between the two applications (first - second)
On the skill variables under research

(n=8)

Variables Skill	The first application		Second application		R
	SMA	standard deviation	SMA	standard deviation	
Chunquan (straight punch)	1.600	0.547	1.800	0.447	0.899
Zhao Quan (hook punch)	1.500	0.462	1.600	0.547	0.901
Bayan Tuai (semi-circular front kick)	1.600	0.547	1.800	0.447	0.889
Dang Tui (Straight Front Kick)	1.600	0.547	1.400	0.547	0.910
Cho Ai Tui (side kick)	1.600	0.547	0.1700	0.647	0.900
Bao Tuai Qian Dang Shuai (holding the legs and throwing to the ground)	1.700	0.647	1.800	0.447	0.913
Gai Tuai Hao Tai Shuai (catch the semi-circular kick, drag and throw)	1.600	0.547	1.800	0.447	0.902

The tabular R value is at $(0.05) = 0.878$

It is clear from Table (5)

The correlation coefficients between the first application and the second application of the skill variables ranged between (0.889, 0.913), which indicates that these tests have a high degree of reliability.

The Survey Study:

The researcher conducted a survey study over the period from Friday, April 1, 2022, to Friday, April 8, 2022, on a sample consisting of (8) junior players. This sample included players from the research community as well as players outside the primary research sample who are involved in the sport of Kung Fu Sanda.

The objectives of the survey study are as follows:

- To ensure the safety and suitability of the tools and devices used.
- To verify the validity and reliability of the tests (scientific parameters).
- To identify the difficulties that the researcher may encounter when conducting physical and skill tests and how to overcome them and arrange the sequence of their application.

The Proposed Training Program:

First: Preparing the Training Program:

The training program was prepared by following the following steps:

- The researcher conducted a review of available Arabic and foreign books as resources.
- A survey of research and studies related to the study's variables was conducted.
- Personal interviews were conducted with experts in sports training.
- Personal interviews were conducted with experts in Kung Fu training.
- A survey was conducted to gather the opinions of experts, and there were ten experts in total.

Table (6)
Opinions of experts in determining the duration and time
of the training program

(n=10)

M	Program variables	Time	Number of experts	percent age
1	Duration of the proposed training program.	2 months	8	80%
2	Number of training units per week.	3 units per week	9	90%
3	Training unit time.	90 minutes	9	90%
4	Number of training units for the program.	24 alone	9	90%

5	Warm-up time within the training unit.	10 minutes	8	80%
6	Determine the general physical preparation time within the training unit.	10 minutes	8	80%
7	Determine the time for your physical preparation within the training unit.	10 minutes	8	80%
8	Determine the time of the main part within the training unit.	50 minutes	8	80%
9	Determine the time of the concluding part within the training unit.	10 minutes	9	90%
10	Training program time in minutes	3240 minutes	8	80%
11	Training program time in hours	54 hours	9	90%

It is clear from Table (6):

The total opinions of experts in determining the duration and timing of the proposed training program and its percentage.

Second: Instructions for implementing the program:

- **Warm-up:**
This includes jogging around the field, static stretches, and arm swings, performed for a duration of 10 minutes.
- **General Physical Preparation:**
This involves preparing all the muscles and joints of the body. General physical preparation exercises are performed according to the designated exercises for each week. These exercises are applied with the same content during the three weekly units to induce the necessary adaptations within a duration of 10 minutes per training unit.
- **Specific Physical Preparation:**
It is important to consider a progression in the level of difficulty, starting from simple to complex and from easy to hard. This is done within a duration of 10 minutes for each training unit.
- **Main Part:**
This part focuses on using offensive techniques, including compound attacks using punching, kicking, and throwing. This is done within a duration of 50 minutes for each training unit.
- **Cool Down:**
It consists of relaxation exercises and muscle relaxation for the body, taking 10 minutes.

Third: Program Duration:

The basic aspects of the program are structured into three weekly training units, with each unit lasting 90 minutes. The program runs for a total of 8 weeks, comprising twenty-four training units. The total program duration is 2,160 minutes or 36 hours. This was determined based on expert opinions, with input from five experts.

Example of a training unit:

Total unit time: 90 BC

Physical goal: Increasing the effectiveness of skill performance (speed of motor response to punching).

Skill objective: Performing exercises for a combination attack using punching and kicking.

Cognitive objective: Identify the most effective offensive phrases in Kung Fu Sanda

Intensity: moderate 55: 67%

The first week, the first training unit, Thursday 4/14/2022

Unit bonus	Time	Content	The distress	the size repetition	Comforts	Training method
Conditioning and warming up	10 m	1- Running with the heels touching the cripple 2- Running with the knees raised high 3- Zigzag running forward	30% 40%	3	30s	Continuou s pregnancy
General shapes	10 m	(Standing - arms in front) Bend the knees in four counts. (Standing open - arms aside) Make a rotation of the torso. (Standing open - arms aside) Raising and lowering the arms in a quarter sprint.	40% 50%	3	10s	Low intensity period
Special physical preparation	10 m	3- (Standing ready) join the right leg over the left, then work sideways with the left (Tai Tuai), descend, then step back with the right to the ready position (1-8) and repeat. 4- Perform the same exercise, but in the front ready position.	50% 60%	3	15s	Low intensity period

The main part	50m	Program application Player (A) performs a front kick with the left leg, Player (B) blocks the kick with the right hand, then a straight punch with the left, followed by a semi-circular Bayan Tuai kick with the right leg.	55% 64%	2	30s	The intensity is high
The main part	10m	1- Relaxation exercises. 2- Stretching the body muscles	25% 30%	--	--	

Primary Studies:

1- Pre-measurements:

The researcher conducted pre-measurements on the research group consisting of (8) players at the Al-Geish Sports Club on Sunday, April 10, 2022.

2- Program Application:

The proposed training program was applied to the experimental group over a period of (8) weeks from April 14, 2022, to June 7, 2022. The training took place on three days a week (Sunday, Tuesday, and Thursday) at El-Geish Sports Club, with the assistance of (2) trainers. The training sessions were held from (5:00 PM to 6:30 PM).

The main part of the program was implemented using offensive sentence structure programs for skill development, with intensity levels ranging from (50% to 100%). The training involved repetitive and high and low intensity periodized training methods.

3- Post-measurements:

Post measurements were conducted on the research sample under the same conditions and using the same pre-measurement tools on Thursday, June 9, 2022.

The statistical analyses used:

The researchers used the SPSS software to calculate the following statistical analyses:

- Descriptive statistics (mean, median, standard deviation, minimum, maximum, skewness).
- Spearman's rank correlation coefficient and Mann-Whitney.
- Wilcoxon test for significance of differences.
- Analysis of variance using Kruskal-Wallis test.
- Percentage change.

Presenting of Results:

Table (7)

The significance of the differences between the pre- and post-measurements of the skill variables under investigation Using the Wilcoxon test

(n=8)

Variables	Total ranks	Average rank	Signal direction	Z value	Probability of error	indication
Chunquan (straight punch)	0.0 45.00	0.00 5.00	- 0 + 9 1 =	2.887	0.004	D in the direction of dimensional measurement
Zhao Quan (hook punch)	0.0 45.00	0.00 5.00	- 0 + 9 1 =	2.887	0.004	
Bayan Tuai (semi-circular front kick)	0.00 36.00	0.00 4.50	- 0 + 8 2 =	2.828	0.005	
Dang Tui (Straight Front Kick)	0.00 28.00	0.00 5.00	- 0 + 7 3 =	2.428	0.015	
Cho Ai Tui (side kick)	0.00 28.00	0.00 5.00	- 0 + 7 3 =	2.460	0.014	
Bao Tuai Qian Dang Shuai (holding the legs and throwing to the ground)	0.00 36.00	0.00 4.50	- 0 + 8 2 =	2.714	0.007	
Gai Tuai Hao Tai Shuai (catch the semi-circular kick, drag and throw)	0.0 45.00	0.00 5.00	- 0 + 9 1 =	2.887	0.004	

The tabular Z value is at a significance level of $0.05 = 1.960$

It is clear from Table (7)

There are statistically significant differences between the pre- and post-measurements in all skill variables and in favor of the post-measurements, where the Z values ranged between. (2,428-2,887)

Table (8)
Arithmetic means and standard deviation for pre- and post-measurements for the skill variables under study

(n=8)

Variables	Pre measurements		Post measurements	
	SMA	standard deviation	SMA	standard deviation
Chunquan (straight punch)	0.422	1.800	0.632	0.800
Zhao Quan (hook punch)	0.422	1.800	0.632	0.800
Bayan Tuai (semi-circular front kick)	0.422	1.800	0.000	1.000
Dang Tui (Straight Front Kick)	0.316	1.900	0.738	0.900
Cho Ai Tui (side kick)	0.422	1.800	0.568	0.900
Bao Tuai Qian Dang Shuai (holding the legs and throwing to the ground)	0.316	1.900	0.667	1.000
Gai Tuai Hao Tai Shuai (catch the semi-circular kick, drag and throw)	0.422	1.800	0.422	0.800

It is clear from Table (8)

The arithmetic means and standard deviation for the pre- and post-measurements of the skill variables under study, where the averages in the pre-measurements were limited to between (0.800) and (1.000), and the arithmetic mean in the post-measurements were limited to between (1,800) and (1,900).

Table (9)
Percentage of change between the average of measurements (pre-post)
For the skill variables under study

(n=8)

Variables	Average pre-measurement	Mean post measurement	Percentages of change
Chunquan (straight punch)	0.800	1.800	%125.0
Zhao Quan (hook punch)	0.800	1.800	%125.0

Bayan Tui (semi-circular front kick)	1.000	1.800	%80.0
Dang Tui (Straight Front Kick)	0.900	1.900	%111.1
Cho Ai Tui (side kick)	0.900	1.800	%100.0
Bao Tuai Qian Dang Shuai (holding the legs and throwing to the ground)	1.000	1.900	%90.0
Gai Tuai Hao Tai Shuai (catch the semi-circular kick, drag and throw)	0.800	1.800	%125.0

It is clear from Table (9)

The percentages of change between the averages of the pre- and post-measurements were limited to between (90% and 125%).

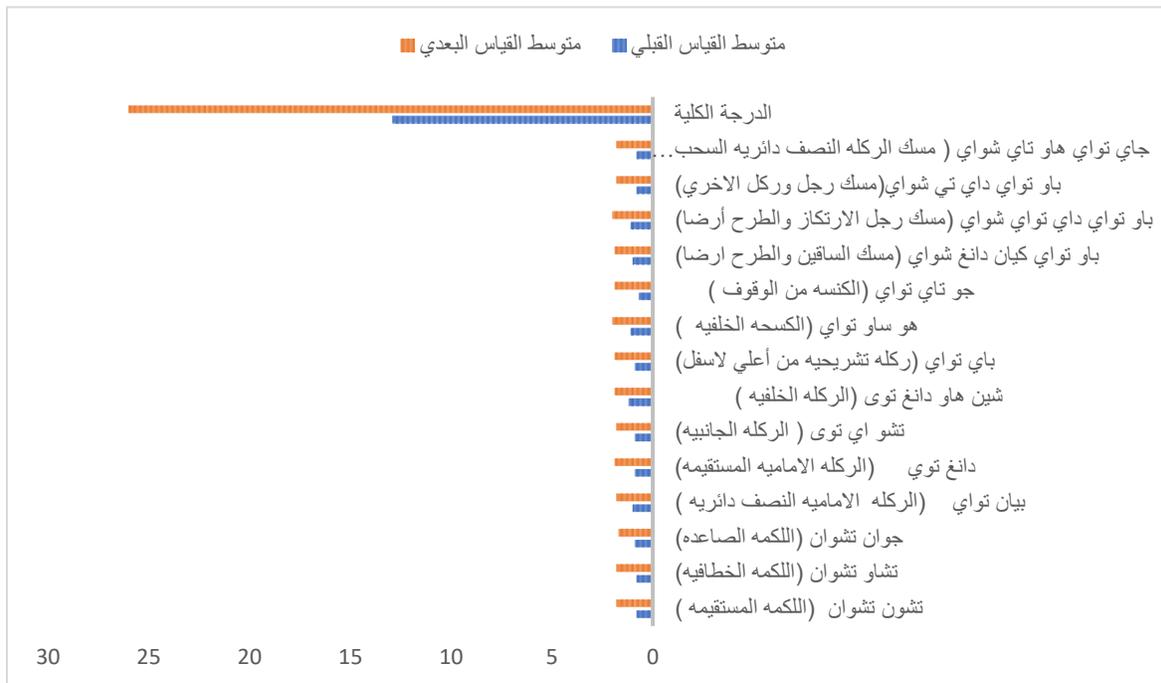


Figure No. (1)

It shows the rate of change between the pre- and post-measurements in the skill variables under study

Discussion of the Results:

Table (7) indicates that there is a statistically significant difference in the Wilcoxon test for the basic research sample between the pre-test and post-test measurements in the skill variables under study in favour of the post-test. The calculated Z values were greater than the tabulated values at a significance level of 0.05, ranging from 2.428 to 2.887. This suggests a statistically significant improvement in the post-test measurements in the skill variables under study.

Table (8) shows the mean and standard deviation of the pre-test and post-test measurements for the skill variables under study. The means in the pre-test measurements ranged between 0.800 and 1.000, while the mean in the post-test measurements ranged between 1.800 and 1.900.

The researcher believes that the changes in the skill variables under study are attributed to the proposed training program that utilized offensive techniques. The training program was scientifically designed and included various exercises performed using the skills and offensive techniques.

This contributed to the improvement in the skill variables under study, which is evident in the variables, such as "Chunquan" (straight punch), "Chaoshan" (hook punch), "Bian Tuwai" (front semicircular kick), "Dang Tuwei" (straight front kick), "Chou Ei Tuwei" (side kick), "Bao Tuwai Kian Dang Shuai" (holding the legs and throwing to the ground), and "Jai Tuwai Hao Tai Shuai" (holding the semicircular kick and pulling and throwing). The research results agree with a group of studies that have used offensive techniques in combat sports, as training using offensive techniques has a positive impact on skill performance in these sports.

The results align with "Ahmed Mahmoud Ibrahim" (2015), confirming that the regulatory methods for training loads specific to tactical maps impact the physical and skill performance of karate players.

They also correspond to the findings of the study by "Ahmed Khamees Abdelhameed" (2014), who indicated in his study that the proposed training program using the offensive construction strategy within the training unit structure has a positive effect on the effectiveness of tactical activity indicators in kumite.

Furthermore, they agree with the results of the study by "Alaa Hamdi Azzam" (2014), where her results indicated that the use of offensive movement phrases led to the development of certain attack indicators under investigation in actual kumite competitions.

This is consistent with the results of a study by "Mohamed Labib Abdel Aziz" (2012), which indicated differences between international and local level players in the sport of full-contact fighting (Kumite) in favour of the international level in most aspects of offensive activity, such as the timing of attacks, executed skilful style, the number of preparation steps for the attack, and the effectiveness of offensive activity during the match.

Thus, the first hypothesis, which states that there are statistically significant differences between the pre and post measurements of the research group in the measurement of offensive and defensive skills, meaning skill performance, in favour of the post measurements for Sanda players, has been confirmed.

As shown in Table (9), the percentages of change between the average pre-measurements and post-measurements for the skill variables under investigation were within the range of 90% to 125%.

Additionally, Figure (1) illustrates the average change between the pre and post measurements for the skill variables under investigation.

The researcher believes that this change in the skill variables is attributed to the proposed training program that utilizes offensive techniques. The program was designed following scientific principles and included various training exercises that were performed using these skills and offensive techniques.

This significantly contributed to the improvement of the skill variables under investigation, as evident in the variables, such as "Chun Chuan" (straight punch), "Chao Chuan" (hook punch), "Pien Tui" (half-circle front kick), "Dang Tui" (straight front kick), "Chou Ai Tui" (side kick), "Pao Tui Kian Dang Shuai" (leg hold and takedown), and "Chai Tui Hao Tai Shuai" (half-circle kick and throw).

The research results align with numerous studies that have used offensive techniques in combat sports, indicating that training with offensive techniques has a positive impact on skill performance in these sports.

This is in line with the findings of a study conducted by Ahmed Yahia Fawzy (2019), which showed that using tactical sequences for some skills had a positive effect on the improvement of performance in the sport of Kung Fu Sanda.

Furthermore, the results are consistent with a study by Nasser Mohamed Hanafi (2014), which confirmed that developing certain counter-attack types has a positive impact on improving the quantitative effectiveness of offensive activity for Sanda athletes in Kung Fu.

It also aligns with the results of the study by "Mahmoud Rabie Amin Al-Bashihi" (2005), where his study indicated that the proposed training program for skill and tactical characteristics, following the strategy of world-level matches, led to an improvement in the performance levels and results of karate players.

Hence, the second hypothesis, which suggests "there is an improvement between pre-measurements and post-measurements in the skill performance for the research group in favour of the post-measurements of the Kung Fu Sanda athletes," is supported.

Conclusions:

Considering the research objectives, the nature of the study, the research sample, the methodology employed, and the data collected and statistically analysed, the researcher has reached the following conclusions:

- 1- The use of the proposed training program with attack combinations has a positive impact on the specific skill variables of Sanda athletes.
- 2- The attack combination exercises specific to Sanda have played a role in positively affecting all the skill variables under study (kicking, punching, and throwing).
- 3- The attack combination exercises specific to Sanda have played a role in positively affecting all the tactical variables under study (attack, defence, counterattack).

Recommendations:

Considering the procedures conducted in this study, within the selected research scope, and based on the results and conclusions reached by the researcher, the following recommendations can be made:

- 1- Utilize the combination program in training to enhance the skill variables of Sanda athletes in sports club programs.
- 2- Employ the combination program in training to improve the skill performance of Sanda athletes.
- 3- Utilize the combination program in training to enhance tactical variables (attack, defence, counterattack) for Sanda athletes.

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