

The impact of Sakio's training on some types of muscle power and the level of performance for the hopstep in the effectiveness of the triple jump

Researchers

Dr. Abdullah Shanta Faraj / Abdullah.shinta@uobasrah.edu.iq

Dr. Hashim Shakir Abdulkareem / hashim.shakir@uobasrah.edu.iq

Dr. Hussam mohamid jabber/ hussam.mohamid@uobasrah.edu.iq

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Abstract

The players aspire to improve their performance and develop their physical and digital achievement, which is the purpose or aim of training programs undertaken by trainers for their players. Knowledge of training methods, effectiveness, muscle contractions, fiber quality and biochemical characteristics of muscle contractions, neurological and physiological responses are important factors in the preparation of a sports per capita for local and external competitions , sports performance process with multiple scientific dimensions reflected through an application Different education and training programs and scientific contributions to the legalization of training loads Physical, profitable and plant to prepare an integrated player to face sports competitions , The researchers used the pilot curriculum using one group **experimental design** by following the tribal and satellite measurement, sample was selected in the deliberate method, from the students of the Faculty of Physical Education and Sports Sciences Phase II / Basra University, and the sample size (20) students, **CONCLUSIONS** was

1-Training program using sakio exercises has an effective impact on the development of some kinetic capabilities (muscle endurance of men, fitness, transition speed, envelope force)

2-The training program contributed to the use of sakio exercises to improve the digital level for the effectiveness of the triple jump in athletics at the students of Faculty of Physical Education / Sports Sciences / Second / Phase University

1-1 Introduction

The rise in achievement and sports performance is a dimension process Multiple scientific reflects through the application of various education and training programs and information contribution Scientific facts in the codification of physical and professional training and plans for an integrated player preparation To meet sports competitions and states that sports training methods are targeted All to develop a physical, professional and technical performance level, down to achieve advanced positions in Different sports activities, the training process seeks to

choose the best types Training methods and apply and use the latest means that suit the type of activity In order to invest the most important motor and physical capacity of the specific type of activity Because they have a direct impact on the high level of physical and skilled performance .(2: 47:2003)" the players aspire to improve their performance and develop their physical and digital achievement", which is the purpose or aim of training programs undertaken by trainers for their players. Knowledge of training methods, effectiveness, muscle contractions, fiber quality and biochemical characteristics of muscle contractions, neurological and physiological responses are important factors in the preparation of a sports per capita for local and external competitions. (10:32:2001)" that this promotion at the physical and digital level is due to sever Factors such as personal readiness for anthropometric and morphological player" . Fitness elements and training plans used, and its dependence on scientific methods Modern, and there are several other factors as a nutrition and daily life used for athlete has demonstrated their impact and effectiveness in improving the level of sports. Mohammed (8:41:2005) adds that upgrading At the level of achievement and sports performance process with multiple scientific dimensions reflected through an application Different education and training programs and scientific contributions to the legalization of training loads Physical, profitable and plant to prepare an integrated player to face sports competitions. Allawi (11:22:1999) said that athlete cannot master the motor skills for the type of sports activity In case of lack of physical capacity necessary for this type of sports activity The development of motor capacity is not abstract is not abstract but is through the distinctive characteristics The training of sakio is a special training aimed at strengthening the bonding capacity and the speedy force and the relationship between the burden and speed, so this type of training has spread Super-fast, became one of the most famous training methods for different levels of players, and also became Acceptable as a general method of appropriate training methods for a wide sector of sports activities Which plays a great role Abdel-Fattah (5: 98: 2003)" said that SAKIO training is a new form of moving mobility, which has recently become common to improve the ability to jump". Concrete and rubber for the muscle, although the rapid mutation of muscles before consideration leads to an increase in contraception to produce a larger force

1-2Research problem

Sports training aims at attempting to access the player to the highest level as possible in a particular type of sports activities and to achieve this goal, sports training is seeking to develop both fitness and kinetic abilities for selected sports activity and develop.

The researchers believe that athletics sport is significantly dependent on high technical performance for what this sport is high, and this is evident in the jump events that need a high

level of technical performance, so the kinetic and physical capacities of the tripartite are very interested in achieving their importance High and advanced achievement. Through the experience of researchers in the field of training and teaching athletics in many universities, and by informing them on athletics tournaments in Jordan, especially the effectiveness of tripartite jump, they noticed that there is weakness in the level of achievement, and the weakness is specifically at the digital level in the effectiveness of triple jump, so The researchers believe there is a problem that there is a problem for the lack of specialized training programs. , Transition speed, bonded strength) and digital level for the effectiveness of the tripartite jump at the students of the Faculty of Physical Education at Basra University

1-3 Research hypotheses

1-There is a statistically significant impact at a level ($A \leq 0.05$) for the use of sakio exercises to develop some kinetic capabilities (muscular endurance of men, fitness, fitness, evangelical force) among students of the Faculty of Physical Education and Sports Sciences at Basra University.

2-There is an statistically significant impact at a level ($A \leq 0.05$) to use sakio training to develop the digital level for the effectiveness in hop step of triple jump in the forces of the Faculty of Physical Education and Sports Sciences at Basra University.

1-4 Research field:

1-Human field: students of the Faculty of Physical Education and Sports Sciences / Phase II / Basra University for the academic year 2020/2021

2.The second semester of the academic year from 12/10/2021 / until 13/ 12/12021.

3-Spatial area: Faculty of Physical Education and Sports Sciences / University of Basra/

2 - Research Methodology

The researchers used the pilot curriculum using one group experimental design by following the tribal and satellite measurement, for the occasion of the nature and objectives of this study

2-1 The study sample

The researchers sample was selected in the deliberate method, from the students of the Faculty of Physical Education and Sports Sciences Phase II / Basra University, and the sample size (20) students for the first semester of the academic year 2020/2021. Table (1) shows statistical data for selected sample and weight.

Table (1)

Study sample properties according to age, length and weight variables (n = 20)

Variables	Measurement	MEAN	Standard Deviation	Medan	SKEW MODULUS
Age	year	20.73	1.67	21	-0.325
length	meter	172.781	4.612	171	-0.318
Wight	k.g	68.37	7.05	69	-0.276

It is clear from Table (1) that the torsion transactions for the research sample, length and weight (± 3) indicating the homogeneity of sample members in those variables

The researchers conducted the homogeneity of sample members of the kinetic capacity (muscle endurance of men, aggravation, transitional speed, and digital level for the effectiveness of the triple jump before the use of sampling and schedule table (2)

Table (2)

The homogeneity of sample members study in kinetic capacities and digital level

For the effectiveness of triple jump (n = 20)

Variables	Unit Measurement	Mean	Standard Deviation	skewness
Muscle endurance for two pillars	rep	31.20	3.01	-0.75
Fitness	sec	10.35	0.82	-0.39
Transition speed	sec	3.75	1.49	0.33
Bonded strength	cm	2.06	0.75	-1.14
triple Jump	cm	7.19	1.01	2.04

It is clear from Table(2) that all the values of torsion transactions for variables between (- 0.39 and (2.04). Indicating the homogeneity of sample members of the study in these variables before applying the training program using sakio training.

2-2 Data collection tools:

1-Multiple wooden boxes

2-Multiple height barriers

3-Medical balance of weight measurement

4-Meters to measure the length

5-Stop Watch

6-Significance and men

7-Field for the effectiveness of triple jump

2-3 Tests used in study:

To determine the tests for motor capacity and measure the digital level for the effectiveness of the triple jump, the researchers reviewed many of the relevant scientific references on the subject of the study, as well as seeing the studies associated with the current study, and after which the researchers presented the proposed tests on a group of experienced owners and specialists in athletics and science Sports training, to determine its appropriate level of sample level and their capabilities, and annex 2 shows the acknowledgment names, and the researchers have been adopted by tests and an annex (1) shows the kinetic capacity tests used in the study:

first Test: Running(6:35:1996)

Purpose of test: Fitness measurement

Used tools: Stop clock, Twins distance between them ten meters, plastic cubes

Performance Method: The student stands behind the starting line, when you hear the start signal running at the maximum speed to the cubes so that one of the cubes picks up and returns at maximum speed to place the cube on the starting line and then starts again to pick up the second cube and return to the start line at maximum possible speed (Note: The student must put the cube on the beginning line without throwing) .

Registration: The student is recorded (in the second) that is cut in running the selected distance (4 * 10) from the moment of the starting signal until it exceeds the starting line, after cutting a distance of 40 meters back and forth.

Second Test: run 30 meters

Purpose of test: Measuring transition speed

Used tools: stop clock, straight path

Performance Method: The student stands behind the starting line of high start mode, when you hear the start sign of the student as maximum speed until the end line is 30 meters from the starting line

Third Test: to measure muscle endurance for legs

Test: **Sit from the mold with bending the knees and hands on the chest**

Purpose of testing: measurement of endurance for abdominal muscles

Tools used: stopwatch

Performance Method: From Mold Mode with Handles and Hands on Shoulder Chest on the shoulders, when giving the start signal The student is based on the two knees to reach the stand and then return to primary mode and so reiterate the test for the largest number of duplicates within 60 seconds

Registration: The number of correct attempts within 60 seconds starts from primary mode until return and so on the time of the test period

Fourth Test: To measure the envelope force for men

Test: **Broad jump of stability**(16:287:2017)

Purpose of test: Measuring muscle capacity for men

The tools used: flat land no slide, measurement bar Performance method: The student stands on the starting line, two slightly and high-arms, with bending the knees

Registration: The distance from the starting line (inner edge) is recorded until the last effect .leaving the student near the jump line

Fifth Test :achievement in triple jump

Test: **Triple jump**

Purpose of test: Measuring triple jump distance

The tools used: a three-legal bounce

Performance method: The student stands in the way of approaching and when the student gives the signal performs triple jump in a legal manner (arguments, step, and bounce)

Registration: Measurement of the actual distance of the tripartite, which is the prod point distance from the internal edge of the promotion board to the earliest trace of student in the

sand pit, students are given three attempts and record the best result for the nears

2-4 Constitutional study:

The researchers conducted an intervention on (8) students from outside the study sample and the same study community. The training program was implemented using a five-year training exercises, the aim of the reconnaissance study was Identify obstacles and errors that can face researchers during the application Identify the appropriate components of training loads for them, and distribute parts of the training unit Identify time and appropriate place to apply the Ensure the validity of the sports tools used in the §training program using sakio exercises Find practical transactions for tests §study and its availability

2-4-1 Honesty:

To make sure the program and tests are ratified for study purposes, using the content truth, researchers presented tests on a number of expert experts and jurisdiction in the powers, to find out their views on the program and tests, and its accompaniment of the kinetic capabilities to be measured and annexed (2) The researchers and the researchers have taken notes and make the proposed amendments, as they confirmed the sincerity of the content of tests in the sense that the tests measure what was developed for

2-4-2 Stability:

To verify the stability of the study tool, researchers applied to a sample of(8) students from the students of the Faculty of Physical Education, taken from the study community and was excluded from entering the study sample, and the -retest, and a week in the first application The second, the stability factor between the two applications has been calculated and every test of study tests, and the table (3) explains

Table (3): Stability of tests used in the study

Test	Pearson
Bounce Running	0.89
Run 30m	0.88
Sit from the mold with bending the knees and hands on the chest	0.90
The long jump of stability	0.89
triple Jump	0.90

2-5 Program Using SAKIO Training

After the sample was selected and taking the necessary approvals and clarifying what exercises will be applied and will be applied, students have been initiated by the training of sakio training, at a rate of three training units per week and for six weeks .Appendix(1)

1-Duration of program 6 weeks

2-Weekly training times 3 times

3-Duration of the training unit for the bend 20 minutes

4-Number of exercise groups 4-6 sets

5-Repetitions in one exercise: * 7 for 70%, * 6 for 60%, * 5 for 50% 5

6 -Comfort periods between groups 2-3 minutes

While the exercises used, whether for warning and calms, which were installed throughout the program, have been selected and distributed and distributed to program units and its. (60%, 70%) and so on the first day of the first weeks, the third, fifth. The sequence of the intensity has been installed in one training unit so that the first group exercises (first session) strongly reduces 50% and reputations, and the second group strongly 60%, its reputations and the last range are 70% and repurchases. The training program has been presented using sakio exercises on a number of experts, before applying the training program where their views were taken by deleting some exercises and adding others. Annex (3) shows sakio training used in the program and how to distribute it on the six weeks

2 -5-1 Implementation of sakio exercises in training

Sakio executions were carried out according to the training curriculum and the specific period of time as follows

Part 1: Warmness and Duration ranging from 3-5 minutes

Part II: The part of public and private physical numbers for the development of kinetic .capacities, using serenity and duration of vulgar

Part III: He is particularly training on the effectiveness of the tripartite jump and 20-25 minutes

2-6 Post Test

The dimensional measurements were made after the implementation of the training program in the same order and the terms of tribal measurements

2-7 Statistical Treatment

The statistical data was analyzed using the statistical package for social sciences (SPSS) version (16) .

Table (5): Average arithmetic, standard deviation and value (T) and distance differences between tribal and actual measuring for kinetic capacity tests

Tests	MASURMENT	Per test		Post test		T	significance
		MEAN	Standard Deviation	MEAN	Standard Deviation		
Sitting from the mold with bending the knees and hands on the chest	REP	30.20	4.01	34.12	3.09	-5.81	0.00
Bounce Running	SEC	11.45	0.91	10.66	0.48	2.79	0.01
Run 30m	SEC	4.49	1.52	3.99	2.68	2.59	0.01
The long jump of stability	CM	2.04	0.76	2.39	0.04	-2.31	0.02

T value at level ($A \leq 0.05$) = 2.179 *

Notes through Table (5) There are statistically significant differences at the level of sign ($A0.05$) between the tribal and actual measures for the kinetic capacity tests for sample members of the study sample (one group) in (muscle endurance of men, fitness, and transition speed) for students of the Faculty of Education Sports at Basra University, and the benefit of the last measurement. The result is consistent with the results of the study), which indicated the impact of perennial drills on capacities and physical qualities.

The researchers attribute these results that SAKIO training features have affected Effective influence on muscle rubber and joints especially and flexible, and that the exercises were done in Some forms on performance in the full motor term either to kick during skillful performance Scrolled funds or cones are beside some prolongation and flexibility and movements The proposed training program was involved positively in increasing the level of flexibility and strength .

For muscles, surrounding and joints. This is consistent with what (9 : 77:1997) "indicated that SAKIO's training is one of the types of exercises that contribute to improving some of the special physical capabilities", most important by muscle power. This result, with the indicated that deep jump training increases the muscles of the two men on explosive performance, and the use of deep jump has an important impact on fitness development, which is low in time change.

The importance of linking the fitness element and what the body requires change its direction in air The researchers attribute this to the impact of the proposed training program, which is characterized by balanced and comprehensive development of fitness elements under study and its individual differences between the research sample and the use of the principle of pregnancy. This agrees with what Abu Al-Ala Abdel Fattah (1: 39: 1997) "indicated that sakio training is one of the exercises that contribute to improving some of the special physical capabilities", most important by muscle power. The result is agreed with what the prince (3:47:2011) indicated that the training of sakio is the link between both muscle and capacity, and many studies have confirmed that a combination of sakio training in addition to traditional power training will lead to high capacity

also stressed Ahmed al-Bastawi (6:11:1996) and "that exercises Sakio is an effective training methods for the development of distinctive power as quickly and contribute effectively to Improve achievement in events that need speed such as jump and rapid jogging. This means". That sakio exercises have led to improved rapid reaction to experimental sample members in addition to Increase the length of the step . The researchers believe that Sakiu's training aims to produce the largest power in less time and contributes to increasing the highest payment and output from rapid muscle-producing and adapting to reducing the time of default and prolongation while paying the higher the jump distance. The training program is also using sakio exercises to improve the speed The muscle in the simplest and convolutionation and this shows that sakio exercises improve the envelope force For men's muscles. Sakio's training is also an effective training methods for the development of force It is fast and contributing to an effective contribution to improving the achievement in events that need to speed Such as jumping and jogging. This means that Sakio exercises have led to improve the reaction speed The experimental sample individuals in addition to increasing the length of the move. This was confirmed (14:105 :1994) that deep jump training leads to the development of speed and muscle capacity of two man

Table (6) Average arithmetic, standard deviation and value (f) and the differences between tribal and backy measures to measure the level of achievement for the effectiveness of the triple jump

Tests	MASURMENT	Per test		Post test		T	significance
		MEAN	Standard Deviation	MEAN	Standard Deviation		
long jump	CM	8.21	0.01	8.69	0.43	-2.23	0.03

T value at level ($A \leq 0.05$) = 2.179 *

The existence of statistically significant differences at the level of significance ($A \leq 0.05$) (6) between tribal and backward measures to measure the level of achievement for the effectiveness of the triple jump for the study sample (one group) in athletics for students of the Faculty of Physical Education and Sports Sciences and the University of Sport (12: 89: 2001)

The researchers attributed significant differences between tribal and actual testing for the study sample at the level of digital achievement in the effectiveness of triangular jump to the training program using saki exercises and ensure quality exercises to develop the triangular muscles where they achieved Sophisticated for the efficiency of these muscles and improved the level of sample study in the effectiveness of the triple jump effectiveness As a result of the use of frequent vertical funds and jumps for technical performance for the effectiveness of triple jump. The researchers also see that Sakiu's training worked on the development of vertical jump (jump to higher) This result was the result of the influence of the muscle capacity of two men by testing the vertical jump and showed the results of the study of (15 : 64 : 1993) and K (3: 230 :2000). And confirms Liny Wilkins Adams, 1999) that one of the factors affecting the success of skill performance is exercises The correct and that this type of exercise contributes high positively in the development of bonding force Fitness and that there is a strong relationship between both saki exercises and strength Empowerment, fitness and performance is other-sided as the saki training can be developed in the direction of fitness by adding kinetic or rotational duties as most sports depends On the link between its combined vocabulary In addition, Saki exercises are working to reduce the time of confusion during the upgrading of jump and the gag between funds, barriers and follow-off from the jump or the gull above the terraces. (4 :109 : 2002) "that these exercises have positive results in terms of influencing muscle groups as a way to develop muscle capacity and require jump skill"

CONCLUSIONS

- 1-Training program using sakio exercises has an effective impact on the development of some kinetic capabilities (muscle endurance of men, fitness, transition speed, envelope force)
- 2-The training program contributed to the use of Sakio exercises to improve the digital level for the effectiveness in hope step of the triple jump in athletics at the students of Faculty of Physical Education / Sports Sciences / Second / Phase University

Recommendations

- 1-Work on the application of the proposed training program using exercises for their contribution to effect
- 2-Positive to develop motor capacity and digital achievement level for triangular jump effectiveness
- 3-Conducting other studies using different exercises of sakio exercises and the impact on the effectiveness of triple jump in power games Emphasis on the need to availability devices, tools and specials during use Sakio training
- 4 -Conduct this study on greater samples and different age groups and different training ages
- 5-Diversity in the use of different methods of sakio exercises and not rely on one method
- 6-Conduct studies focusing on linking private kinetic capacities and other jump events

References and sources

- 1-Abul-Ela, Ahmed Abdel-Fattah (1997). Training load and health sports, Cairo: Dar Arab Thought.
- 2 -Abul-Ela, Abdel-Fattah (2003). Physiology Training and Sports, Cairo: Dar Arab Thought
- 3-Prince, Nasr Hussein (2011). The effect of two methods of weight training and in development of muscle capacity and performance of some youth basketball skills. Journal of Science Education, Sports, second edition, Volume IV.
- 4-Basti, the command of Allah (1995). Training and physical preparation in football, Alexandria The origin of knowledge in Alexandria.
- 5-lacustrine, Najla Abdel-Moneim (2003). The impact of training on the development of distinctive force as quickly as the two men, arms and digital level to throw a spear for pupils High school sports in Zagazig, unpublished Faculty of Physical Education for Girls, Zagazig. University.

- 6-Bastawisi, Ahmed (1996). training in the field of athletics, Episode Second, the International Federation of Athletics Amateur, Regional Development Center, Games Bulletin Forces, No. XIX, Cairo
- 7-Bayati and Abdul-Jabbar (2009). The impact of training Albulaometruc in the development of some variables Elkinmetekih and the ability of the two explosive digital and achievement of the effectiveness of the triple jump. Journal of Science Qadissiya Physical Education, Volume IX, Issue III
- 8-Jumaili, impressive Alwan (2005). The effect of the use of exercises in the development Muscular strength of the muscles of the legs of the volleyball players, Journal of Physical Education Volume XIV, the second issue.
- 9-Ktaabh, Fawzia Mohammed (2013). Impact exercises and weightlifting on the development of Some of the strengths of the volleyball players (comparative study)
- 10-Charag, A; Pal, R; & Yadav, S. (2001). Effect Plyometric Training on Muscular Power and Anaerobic Ability of the Noviced Sprinters. Asian Journal of Physical Education and Computer Science in Sports, 4(1), 77-81.
- 11-Chu, DA. (1999). Jumping Into Plyometrics. Champaign, Human kinetics publishers
Jamurtas, E, at el.(2000). Basketball- Techniques .Teaching and Training. U S A, Barnes and, Co.
- 12-Sincerity Mohamed Abdel Hafeez, Mustafa Hussein Bahi (2002) Methods of Scientific Research and Statistical Analysis in Educational, Psychological and Sports Areas, I 2, Book Center for Publishing, Cairo.
- 13-Ismail, Saad,: (2005) the impact of training methods for the development of the burden of the two men and arms in the remote correction accuracy by jumping high in handball. Doctor, Faculty of Physical Education, University of Baghdad
- 14-Talha Hussain Hossam El Din: (1994) The Holy Land and Functional Sports Training, .Cairo, Dar Al Fakr Arab.
- 15-Risan Khreiba Majid(1995) Applications in Physiology and Sports Training. Baghdad . Nun Printing Office,
- 16-Amr Saber and Others:(2017) Sakio training (interactive fitness, interactive motor speed) Dar al-Fakr Arab, i 1, Cairo

Appendix(1)

SAKIO Exercises (interactive motor speed and interactive fitness) shows

- 1- Description of exercise: stand / side side with two men intersection (exercise caroca)
- 2-Description of exercise: Running crossings with lifting the knees stand / side side with .lifting the knees
- 3 -Exercise description: Stand / jump with feet together using the ankle detailed
- 4 -Description of exercise: Progress with the laptop touch, start turmoil with an ankle laptop, .increase the speed of the feet
- 5 -Description of exercise: diverse speed exercises, beginning rapidly a variety of distance 20 meters between the pebbles, change the speed of speeds during the departure between the .pebbles
- 6 -Description of exercise: diverse speed exercises, beginning rapidly a variety of 30 meters .between the pebbles, change the speed of speeds while passing between the pebbles
- 7 -Description of exercise: The side jump with extensive steps on both sides and .righteousness
- 8 -Description of exercise: Shuttle enemy, stand / enemy right direction distance 5 meters, .then the enemy left 9 meters, then return for an enemy distance 5 meters up the starting point
- 9 -Description of exercise: diverse enemy (square 40 meters) enemy from point (1) to point .(2) and side side to No. (3) Rear Run to No. 4
- 10 -Description of exercise: Running back, running for the development of motor speed for .men