

The Effect of Gibala-Style Exercises According to the Kinetic Energy Index of the Performance Stages on Endurance of Speed and Achievement of 200 Meters for Runners under 20 Years

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Abstract

The importance of the research is reflected in the study of the effect of exercises in the Jibala style according to the kinetic energy index of the performance stages in endurance of speed and achievement of 200 meters for runners under 20 years. As for the research problem: by following up and informing the researchers of the exercises of runners under 20 years old, they noticed that most of the trainers rely on commonly applied training methods and methods and their lack of use of modern training methods, including the Jebala method, which is one of the modern training methods that have occurred recently and which uses training in a short time. This is consistent with the nature and characteristics of the game, thus improving performance under the conditions of extreme work and raising the physical level of the runners. It also increases the excitement and suspense of the runners. Through the above, the research problem can be summarized in the following question:

Does the use of Gibala-style exercises according to the kinetic energy index of the performance stages have a positive effect on endurance of speed and achievement of 200 meters for runners under 20 years?

The research aimed at: preparing Gibala-style exercises according to the kinetic energy index for the 200-meter performance stages, as well as identifying the effect of Gibala-style exercises for the performance stages on endurance of speed and completion of 200 meters for runners under 20 years .

The researchers used the experimental method in a one-group method to solve the research problem, and for the research community, the research community was identified with the runners of the 200-meter race in the Najaf Governorate for the 2020-2021 sports season, numbering (6) players, and then processing the data using appropriate statistical methods.

As for the most important conclusions, they were: The exercises that were applied in the Jebala style helped to develop the endurance of speed for the research sample members, the time of the independent variable represented by the number of training units was appropriate in making adaptations that express the extent of the development of the research sample members to achieve 200 meters.

As for the most important recommendations, they are: Interest in using Gibala-style exercises according to the scientific training foundations to raise the efficiency of short-distance

runners during training and competitions, Adopting the exercises prepared by researchers as basic exercises when training 200-meter runners, the necessity of legalizing the training load for Gibala-style exercises in a manner appropriate to the nature of The sample in terms of gender, training and biological age because it has a high impact on the body during performance .

Introduction:

Scientific progress in our present time begins to occupy the opinions of thinkers and scholars to reach the highest ranks and in various levels, and whenever an individual achieves a degree in this ladder, he finds other degrees in front of him, so the person remains striving to reach what can be achieved, as the development of life aspects in general and the development of sports talents in particular was Thanks to the application of scientific principles and foundations and modern technology and its uses, which were characterized by accuracy and objectivity, in order to reach the desired goal in any activity. It is worth noting that the training aspect has witnessed a remarkable development in the methods, means and tools used in the training process and in line with the nature and potential of the player by striving to choose the method that suits the specialized sports. Various levels for improving physical abilities and level of achievement.

Athletics witnessed the achievement of new world records and qualitative leaps on a continuous basis, which increased its importance in addition to the multiplicity of its effectiveness, which differs from one another in terms of characteristics, components and stages, including the activities of running, jumping and throwing, and the special requirements involved under the banner of each event, which made many keen To practice and harness efforts to advance it. The 200-meter event is a fun, exciting and thrilling event for spectators and runners in terms of competition and high-level motor performance, as this event deals with the maximum effort of the contestant with an accurate performance from the first moment of launch until reaching the finish line.

All of this is worthy of study and research, especially if we know that there are those who do not pay attention to the effectiveness of this training method. Thus, the importance of research is evident in studying the effect of training in the Jibala style according to the kinetic energy index of performance stages in endurance speed and achievement of 200 meters for runners under 20 years.

Research problem :

Through following up and informing the researchers of the exercises of runners under 20 years , they noticed the trainers' reliance on commonly applied training methods and methods and the lack of use of modern training methods, including the Jebala method, which is one of the modern training methods that have occurred recently in which the exercises are used in a short time , and this is commensurate with the nature and characteristics of the game and thus improving performance under the conditions of extreme work and raising the physical and skill level of the runners, as it works to increase the excitement and suspense of the runners, and through the foregoing, the research problem can be summarized in the following question:

Does the use of Gibala-style exercises according to the kinetic energy index for the performance stages have a positive effect on endurance of speed and achievement of 200 meters for runners under 20 years old

Research objective:

- Preparing exercises in the Jibala style according to the kinetic energy index for the performance stages of 200 meters.
- identifying the effect of the exercises in the Jebala style according to the kinetic energy index of the performance stages in enduring the speed and achieving 200 meters for runners under 20 years .

Research hypotheses:

There is an effect of exercises in the style of Gibala according to the kinetic energy index of the performance stages in endurance of speed and achievement of 200 meters for runners under 20 years

Research fields:

- Human field: The 200m runners in Najaf governorate for the 2020-2021 sports season
- Time field: (3/6/2021) to (5/12/2021)
- Spatial field: Najaf International Stadium.

Research methodology and field procedures:

Research Methodology:

The researchers used the experimental method in a one-group style to solve the research problem.

Community and sample research:

The research community was identify by200-meter race runners in Najaf Governorate for the 2020-2021 sports season, which numbered (6) runners

Means of collecting information devices and tools used:

Means of collecting information:

- Arabic and foreign sources and references
- Test and Measure
- Note

Devices and tools used in the research:

- A Lenovo computer.
- Tape measure.
- Handy electronic calculator.
- Manual stopwatch (3).
- Starting predicate.
- A firing pistol.

- A legal running range of 200 metres.
- Barriers of different heights.
- Cones.
- Ladder of agility.

Field research procedures:

Test variables:

First: bearing speed:

- Name of the test / 150-meter test: (Fakher and Bey. 1996)

The purpose of the test is to measure the endurance of speed.

- Tools/stopwatches (3), a stadium and a legal field.
- Description of performance / starting from standing, where each runner in the research sample ran a distance of 150 meters.

Recording: The auxiliary work team records the time completed for this distance, to the nearest millisecond of the middle hour.

Second :200m achievement test:

- Name of the test / test run 200 meters:
- Purpose of the test : measure the achievement of ran 200 meters.
- Tools required : three (3) stopwatches, a kickstand, a playground and a legal field, a shooting pistol.
- Performance specifications : start from sitting, where each runner of the research sample ran a full distance of 200 meters as quickly as possible in accordance with the legal rules.
- Recording : The assistant work team records the time completed for this distance, to the nearest millisecond of the middle hour.

Exploratory experiments:

First: The first exploratory experiment:

The researchers conducted a first exploratory experiment to test the achievement of the effectiveness of 200 meters. The purpose of the exploratory experiment is the following:

- Ensuring the validity of the playground, the tools and equipment used, and the research requirements.
- Knowing the readiness of the research sample to perform the test.
- Organizing the helpers work team.
- Know the time taken for the test.

Second exploratory experiment:

The researchers conducted a second exploratory experiment to find out the suitability of the exercises to the research sample, as the maximum intensity of each exercise used for sample and the time of its performance was used by applying them to all members of the research sample to find out the obstacles that may accompany it.

Pre-test for the research sample:

The researchers conducted pre-tests on the research sample, represented by tests of strength, speed and achievement of the effectiveness of 200 meters on Thursday, 1/8/2021, and the researcher proved the conditions related to the tests such as place and time.

Application jibala style exercises:

The researchers prepared a regimen of exercises in Tabata style, based on personal experience, and began applying the exercises in the Tabata style on the research sample on 13/8/2021 until 14/10/2021, and the components of the training load were taken into account, and the researchers codified the exercises on a scientific training basis, in addition to the physical ability of the research sample, the equipment used and the training system, to be able to develop the variables of strength characteristic of the speed and the achievement of 200 m for runners.

The details of the jibala style exercises are as follows:

- Total number of units (24) units.
- The number of weekly units in jibala exercises (3) units for period of (8) weeks.
- jibala-style exercises in the training unit (12-13) minutes (main section only).
- Training days (Sunday, Tuesday, Thursday), as these days fit with the nature of the program that was developed by the researchers and the agreement with the coach so that there would be no intersection in the training units, in addition, these days fit with the fluctuation that Drawn for the training week (weekly circuit).
- The goal of the exercises in the jibala style is to develop the power characteristic of speed and the completion of 200 m for the research sample
- The maximum intensity (100%) was extracted for each exercise in order to draw the curriculum and training units.
- The researcher used the wave (1:2) between the daily and weekly training units when applying the exercises in the jibala style.

Post-tests:

After completing the jibala-style exercises on the research sample, the researcher re-applied tests on Tuesday 17/10/2021.

Statistical methods: The search data was processed through the Statistical Package for the Social Sciences (SPSS).

Presentation and discussion of results.**Presentation and discussion of the results of the pre and post-tests of the research sample for the variables under research:**

Table (1) shows the median , quartile deviation, Wilcoxon value for the results of the velocity and achievement endurance test .

Variables	Measuring	Pre-test		Post-test		w value	level Sig
		mediator	Vernal deviation	mediator	Vernal deviation		
Bearing speed	Sec	17.46	0.31	16.36	0.12	0	morale
200m achievement	Sec	23.49	0.23	22.26	0.30	0	morale

Discuss the results:

Through what we observe from the results presented in Table (1) that there are significant differences between the tribal and remote tests of the research sample and in favor of the post tests of the (speed endurance and achievement) tests. Especially endurance, as one of the benefits of this method is to work at a high intensity for 60 seconds and rest for 75 seconds, and this contributes to increasing the ability of runners to work continuously and delaying the onset of fatigue. It also helps to adapt the functional organs of the body and its reflection on the ability to endurance speed , The researchers were also keen that the work should be based on a scientific basis for the steps of the Gibala style in a way that contributes to taking into account the age group of runners, as planning the training loads is one of the important factors that contribute to increasing the level of speed endurance because the development of any ability, whether physical or motor depends on the correctness of legalization The components of the external load (intensity, size, comfort) with the internal load (the physiological sufficiency of the internal body organs). The researchers relied on the literature of the (Gibala) method in developing speed endurance by codifying the repetition of performance with the nature of the intensity used. The researchers also believe that proper planning And the good had a clear impact on the development of the physical variables for the members of the two experimental groups, which the researcher intended to make the training process an organized and integrated process in order to achieve the goal of these exercises, and then achieve the hypotheses of the research and this is confirmed by (Jamal Sabri Farag) "The correct training planning is to enable The athlete has the right to reach the highest level of physical, motor, skill and psychological readiness for use during competitions, and to maintain this level for as long as possible through organized training" (Frag.2012).

The researchers believe that the advancement in the level of abilities related to the performance of any sporting skill or activity will inevitably contribute to improving the level of achievement for that skill or effectiveness in a positive and effective manner, as the training units included exercises to develop the motor performance of running using a variety of exercises, noting that these exercises serve the motor path performance for the purpose of

reaching the optimum speed required by efficiency or skill, and it is one of the procedures that develop technical performance (Yassin Taha. 1986).

In addition, the performance of these exercises contributed to "mobilizing a greater number of muscle fibers and recruiting a greater number of motor units than when performing these exercises" (Abdul-Hussein. 2003).

The researchers also attribute the development of the level of achievement in the effectiveness of running 200 meters to its dependence on the physical variables of the runner, including the variable endurance of speed. Therefore, any improvement in these variables will lead to an improvement in the level of achievement. A significant and effective contribution to achieving this improvement, whether in the physical or biomechanical variables, which in turn was reflected in the runners' achievement. In addition, the rationing of stress was according to the kinetic energy index, as the use of this indicator depends on the player's mass, distance and time in determining the intensity and thus gives more effective results. And accuracy in the training process, especially when training speed, as it takes into account the individual differences between the runners, and mentions that one of the methods of special speed training is accuracy by determining the intensity, and also that training with kinetic energy has proven its effectiveness in developing achievement (Kazem et al . 2020).

Conclusions and Recommendations:

Conclusions:

- 1- The exercises that were applied in the Jebala style helped to develop the speed endurance of the research sample members.
- 2- The time of the independent variable represented by the number of training units was appropriate in creating adaptations that express the extent of development of the research sample members to achieve 200 meters.
- 3- The development of speed endurance was positively reflected on the development of the achievement of running 200 meters for runners under 20 years .

Recommendations:

Under the conclusions that resulted from the research, the researchers recommend the following

- 1- Paying attention to the use of exercises in the Jibala style according to scientific training bases to raise the efficiency of short sprint runners during training and competitions.
- 2- Adopting the exercises prepared by the researchers as basic data when training 200-meter sprinters.
- 3- The necessity of rationing the training load for exercises in the Jibala style to suit the type of practitioners in terms of gender, training and biological age, because it has a high impact on the body during performance.
- 4- Conducting similar studies on other individual and collective activities, and on different age groups.

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