

The impact of ballistic exercises in accordance with the different training method in the development of the strength of the speed of the two men for the racers and the completion of the event of the 200m run for youth

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Abstract

The study aims to learn about the impact of ballistic exercises in the different training method in the development of the strength characteristic of the speed of the 200m run for youth, and assumed the positive effect of ballistic exercises and the method of variation on the speed of transition in the 200m run of the Iraqi youth team in athletics, which numbers 8 The study concluded that the use of contrast-style ballistic exercises to develop the strength of the 200m was positively influential for the development of this characteristic and recommended the study the need to focus on the method of contrast when using the method of ballistic training and resistance exercises because it has a significant impact on the physical abilities of athletics.

Keywords: Ballistic exercises, contrasting training style, speed-featured power, 200m run

1-Introduction and the importance of research:

The great scientific development that occurs in different fields of life is due to the adoption of modern and advanced scientific methods through the characteristics of modern devices and tools to reach the goals and objectives sought by experts and researchers in various disciplines, and is the field of sports, which has witnessed a remarkable development through progress in the mathematical levels that came as a result of proper planning and programmed. The event of running 200 m of the most exciting and exciting athletics events for the public is the fast-paced events that are characterized by strong competition and short performance time, which is one of the difficult events that have a speciality because the athlete runs in the first half in the form of a straight arc and the other half in the form of a straight and for the variables that occur during the running of the bow on the body of the runner play a big role in the achievement as a result of the performance characterized by this event and which requires muscle strength characterized by speed and which players can benefit from in achieving achievement Good, modern sports training, which is built on modern scientific foundations and good organization, which requires understanding of all the nature and characteristics of effectiveness and factors affecting it in order to achieve the best results and thus reach the higher levels, and therefore it must be emphasized the development

of the individual's training condition in accordance with those requirements depending on the factors affecting the level of progress in the training programs and moving away from traditional methods, that training muscles using exercises characterized by strength of speed is important in strengthening the legs of the runner As well as gaining good speed runner by increasing muscle strength in fast frequency performance in achieving speed of movement and transition speed, integration in the production of muscle strength is characterized by the use of special exercises in the training of the muscles of the body, especially the muscles of the legs, greatly affect the achievement of high levels.

The importance of research using ballistic force exercises according to the training method in accordance with the method of training is in accordance with the training method in the speed that is necessary and the basis in achieving the effectiveness of 200 m as it helps the runner to develop some physical abilities and thus gain a great transition speed and mobility in order to achieve better achievement, hence the importance of research in the use of these exercises in the method of training varied and reliable in achieving a good achievement in the effectiveness of running 200m.

1-2 Search problem:

The researcher noted that there is a modesty in the numbers achieved at the level of this competition compared to the international, Arab and Asian figures, all of which generated a problem for the researcher and may be due to many factors that have negatively affected it, including the lack of recognition of the reality achieved From the amounts of momentum during the run for a relatively longer period of running 200 m may be the reason for the defect in the special exercises that are often based on the development of speed and which should be called the factor of strength characterized by speed related to achievement, as well as the need to increase the interest of athletics trainers to develop special physical requirements, including some types of muscle strength, including strength of speed, as well as the development of achievement of efficiency in training units, as a result of their belief that the best training for runners 200 m is the development of Speed, and the principle of repetition leads to the development of the physical characteristics of this effectiveness, and this alone is not enough to get the desired results of the training process by improving performance and developing this speed, which necessitated the researcher to use ballistic exercises in determining and racking the level of strength in a different way in order to correct the performance of the strength characteristic speed and develop the achievement of our runners to reach the level of Better may be equivalent to what is achieved internationally at the level so the researcher considered to address this problem contribution to the possibility of developing accurate scientific exercises and in a modest attempt to upgrade the training curriculum by using ballistic force exercises (in a contrasting manner) effectively to develop muscle strength, especially the muscle strength characteristic of speed for the athlete and raise the level of achievement.

1-3 Search objectives:

- 1- Learn about ballistic power exercises in the different training style of the 200m youth event runners.
- 2- To identify the effect of ballistic force exercises in the different training method in the development of the speed-characterized power of the two men for the 200m event for young people.

1-4 Research hypotheses:

- 1- The existence of statistical lycies between Pre- and Post-testing in the strength of the speed of the two men and the achievement of the 200m run competition for youth and in favor of the Post-test.
- 2- The existence of statistically significant differences between the experimental and control groups in the force characterized by speed for the two men and the achievement of the competition ran 200 m for the youth and for the benefit of one of the groups.

1-5 Areas of research:

- 1- 5-1 HumanField: (12) Young player in the event of running short distances.
- 1-5-2 Timefield: for the duration of 18/9/2019 until 24/11/2019.
- 1-5-3 SpatialField: Athletics Training Center at Al-BayaA Youth Center.

2- The research methodology and its field procedures:**2.1 The search method used:**

The method was used by the design of the two equal groups (OfficerWaltFolliclei) to suit the nature of the research problem.

2.2 The research community and its appointed: -

The research community of short-distance players for young people (17-19 years) was determined according to the classification of the International Federation of Athletics, and the sample of research was selected in the various way, including (12) players from the specialized training center of the Central Iraqi Athletics Federation in Baghdad, and the homogeneity of the research sample was verified in (variables of length and mass Body and age) and the sample was distributed into two groups by lot (officer and follicle) each group consisting of (6) players, as the control group carried out training exercises adopted by the trainer, while the experimental group adopted the same training method adopted by the trainer except exercises in the manner of the different training prepared by the researcher.

2-2-1 homogeneity of the search sample:

Table (1)

Shows the homogeneity of the research sample in some inthometric measurements

Variables	Unit of measurement	N	Arithmetic medium	Mediator	Standard deviation	Twisting coefficient
Length	Cm	12	177	177.5	3.104	0.022
Body mass	The government's support	12	63.666	64	1.557	0.026-
Age	The government's	12	17.25	17	0.452	1.327

	support					
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2-2-2 Normal sample distribution:

Table (2)

The natural distribution of the sample in some search variables

Variables	Unit of measurement	N	Arithmetic medium	Mediator	Standard deviation	Twisting coefficient
Power with speed (ridge)	M.R. Sam	12	9,120	9.100	0.131	0.559-
Strength of speed(belly)	Number	12	19.25	19	0.965	0.136
Achievement 200m	Tha	12	25.176	25.10	0.427	0.904

2.2.3 The tavo between the two groups:

To confirm and ensure the single start line between the two groups, parity between the two groups was performed in the variables examined using the independentsample-t method and the results were statistically unfunctional in all variables.

Table (3)

Shows the results of strength indicators characterized by speed and achievement and value(T for research sample

Variables	The command group		Experimental Group		(t) Calculated	The level of morale	Indication of differences
	A	STD	A	STD			
Power with speed (ridge)	9.126	0.141	9.113	0,133	0.168	0.870	Random
Strength of speed(belly)	19.666	1.032	18.833	0.752	1.597	0.833	Random
Achievement 200m	25.283	0.397	25.070	0.466	0.853	0.413	Random

Degree of freedom (10) and level of significance 0.05

2-3 means of collecting information, tools and devices used in the search:

2-3-1 means of collecting information:

I've been taking advantage of whatcomes:

Arab and foreign sources and references.

- Note and WaltGrup.

Interviews.

- Testing and measurement.

The government's plan to provide as many as \$100 million to the Government of the United States of The United States

- Height and weight measurement device
- Different bars, weights, seats and porters.
- A long legal jumping field.
- Medical balls weighing 2 kg.
- Adhesive tape, measuring tape, and chairs to sit during tests.
- A stopwatch.
- A measuring tape.
- Barricades, grills and cones.

2-3-3 Assistant Staff: The assistant staff was utilized.* For tests.

2.4 Field search procedures:

2.4.1 Identification of measurements and testing for research:

First: Tests of rapid muscle strength: -

Test three arguments (left and right) (Qasim 3:57):

- The goal of the test: to measure the strength of the muscles of the legs.
- Tools: flat area (space), measuring tape, whistle to give start signal.
- Performance specifications: The laboratory stands on the starting line with one of its feet performing the partridge process, and the laboratory performs three consecutive arguments at the furthest distance.
- Conditions:
 1. The foot must be pushed from the stability position.
 2. Speed in performance.
 3. Measurements are taken for the nearest (cm).
 4. Two attempts are given to each laboratory for each man (left and right) and the best result is taken.
 5. The number recorded by each laboratory is announced on the next laboratory to ensure the competitive ness factor.

Registration: The laboratory score is calculated to the nearest (cm) between the starting line and the distance reached by the laboratory.

*Team Helpwork

- 1- D. Ahmed visit . Ph.D. Sports Education.
- 2- D. Saif Abdul Karim Nehme. Doctor Sports education.

2. Test ing the speed of theabdominal muscles of the titering - sitting (20) tha (Muhammad 5:262)

The purpose of the test: to measure the strength of the abdominal muscles and holding muscles of the thigh joint.

Tools: stop watch, flat flat.

Performance specifications / The laboratory lies on the back above the flat flat with opening feet by (30 cm) so that the palms touch the neck from the back and elbows bentn (a colleague installs the feet) immediately after hearing the starting signal of the referee the laboratory bends the trunk to reach the sitting position length and then repeats it as many times in (20 tha).

Registration/ Record the number of correct performances in twenty (20) tha

5.Test achievement ran 200 m.

International effectiveness law has been adopted.

2-5 Exploratory experiment:

The survey was conducted on Wednesday, 18-9-2019, at the Specialized Center for Athletics of the Ministry of Youth and Sports at 4 p.m. on (3) players without a research sample. This experiment included strength tests featuring speed and a 200m test to introduce the assistant team to the nature of the work and procedures and to identify the obstacles encountered in the research.

2-6 MainExperience: -

The Pre- tests were conducted on 22September 2019 at the Athletics Stadium at the Al-Baya Youth Center, the headquarters of the Iraqi Central Athletics Federation, for two days from 4:00 p.m.

2.7 Proposed training exercises: -

After surveying the opinions of experts and specialists in the field of sports training in order to learn how to work in the training unit and appropriate training loads, the researchercountedthe training curriculum, which includes the use of variousexercises in a different way (mcontrast) as the sample of the research was divided into two groupsand the first group(tfollicle) was trained using exercises in a different and strictly differentmanner by using high intensity resistors followed by low intensity or the use of body weight (doubleexercises), the second group (officer) continued to practice on the vocabulary of the traditional given The trainer accepted that the training curriculum was implemented from Wednesday, September 25,2019 to Sunday 24/1 1/2019 and for a period of (8)weeksby(2) weekly training units within the training units of the force has included the training program on a totalof(16) training units within two months,and the researcher applied this minhC using free weights, inhibitors and jumping as this training method is the method of training the proposed method of the researcher in order to reach the maximum degree Effectiveness through the use of force in different ways

Ballistictrainingandballistic movement have three main milestones:

The initial stage of movement is carried out by muscle contraction by default (concentric) which begins the movement - and the second stage is the stage of regression or descent which depends on the wheel (amountof movement) generated in the first stage - then the third stage: - the stage of

decreasedipping (deceleration) and accompanied by muscle contraction by length (eccentric), - andballistic resistance training (includesexplosive movements against resistanceat the maximum speedpossible) as The training of ballistic resistance training is a relatively modern method that links the elements of the training of the polymers and the training of weights and includes the lifting of relatively light weights and high secret,through which the researcheremphasizesthe need to be the exercises used similar to the requirements ofperformance during the competition for the purpose of benefiting from the effects of these exercises, which consists of a group of exercises consisting(6-10 repetitions) and strongly between (70-100%)The timing of the performance is varied according to the intensity of the weight (fast - medium - slow) can be reached not only through a few loads but by switching between loads (maximumforce- carrying power- speed of force in an explosive manner from the use of weightlifting loads- and exercises without the use of additional loads and these Exercises can be used steadily and anchored like jumping with feet)with the changewithin the same training unit and within the group where the implementation of thefirst iteration is speed followed by a slow iteration followed by average and so with a high speed level while the performance ofthegroup for resistance relative weightsreached(5%-15%)From the maximum possible intensity and very high time and must be performed(2-3)total in this style inthe training unit for each exercise and rest between exercise and another (5:1) second ratio work to rest either rest between one group and another(2-5 d) in order to recover again,Theexercises, the movements of the recoil jump and the partridge, then the use of boxes, axes and obstacles of different heights in addition to the use of weights with different weights and the sample used the iron device(Malamet) and all the exercises were given according to the training program described in Annex 1explains the training unit.The researcher makesure that the total training loads of both groups were as similar aspossible.

2-8 Post-tests: -

The method used in Pre- tests was relied upon in aspects of the sequence of tests and the neutralization of extraneous factors as much as possible by the team by conducting the Post-tests of the two research groups on Tuesday, 24/11/20 19.

2-9 Statisticalmeans: -

The Statistical Bag System (SPSS) was used to extract and process search results.

3- View, analyze and discuss theresults: -

3-1-Presentation of the results of the force characterized by speed and achievement (Pre-and post) of the control group:-

Table (4)

Shows the differences of mathematical circles and standard deviations and the value (T) of the research sample of the control group in the special force at speed and the completion of the run of 200 m

Variables	Pre-		Post		P	A.	(t) Calcul ated	The level ofmor ale	Indication of differences
	A	STD	A	STD					

Power with speed (ridge)	9.126	0.141	9.205	0.115	0.078	0.042	4.552	0.006	Sign
Strength of speed(belly)	19.666	1.032	20.50	1.048	0.833	0.408	5.00	0.004	Sign
Achievement 200m	25.283	0.397	25.170	0.393	0.113	0.0711	3.900	0.011	Sign

Degree of freedom (5) and level of significance 0.05

3.2 Presentation of the results of the presentation of the results of the strength characterized by speed and achievement (Pre-and dimensional) of the experimental group:

Table (5)

Shows the differences of mathematical circles and standard deviations and the value (T) of the research sample of the control group in the special force at speed and the completion of the run of 200 m

Variables	Pre-		Post		P	A.	(t) Calculated	The level of morale	Indication of differences
	A	STD	A	STD					
Power with speed (ridge)	9.113	0.133	9.405	0.092	0.291	0.100	7.096	0.001	Sign
Strength of speed(belly)	18.833	0.752	22.50	0.547	3.666	0.516	17.393	0.000	Sign
Achievement 200m	25.07	0.466	24.398	0.344	0.671	0.359	4.581	0.006	Sign

Degree of freedom(5) and level of significance 0.05

3.3 Discussion of the results between the Pre- and Post-tests of the experimental and control group: -

The results of the analysis of statistical data obtained using the test(T) of analog samples moral differences between the Pre- and Post-tests in the strength of the speed and achievement of the effectiveness of 200m and in favor of the Post-test, for the control and experimental groups, showed that the rapid muscle strength is of great importance with the events of athletics, especially the effectiveness of 200 m Which depends very much on the development of muscle strength mainly fast, and speed is the main measure of the strength characteristic of speed, or in the term

performance time because performance time represents speed so that the strength of the speed appears only in the performance of dynamic movements, and the characteristic tends time to speed more than strength depending on the time of motor performance as well as the type of movement or effectiveness. Therefore, Muhammad Osman refers to the concept of rapid capability in that it is "the ability to achieve maximum power in the least time"(Muhammad The researcher attributes this to the nature of the exercises provided to the experimental and controlled groups, which were developed scientifically and accurately through the formation of the training load and its proportions and types in accordance with the goal of training and training methods used to solve the main duty, which is to reach a level of advanced in the effectiveness of 200 m, as "carrying training is the main means of influencing the individual and leads to the upgrading of the functional and the advanced level of the organs and organs of the body, thus developing and developing physical attributes, motor skills, planning abilities and voluntary attributes" (31: Mohammed51). Through the investment of exercises, which were performed by the experimental group and the control, these exercises contributed to achieving a great muscle strength, including the strength of the speed, as they are an important requirement and a basis in achieving the desired achievement, as the fast muscle force is important, which occupies a firm position in the curriculum of athletics trainers for various events and has a great role in The development of achievement and this is consistent with what (Saad Saadoun) touched on " most games adopt fast strength exercises but they differ in the ratios of both strength and speed in their vocabulary, there are games where the character of speed is dominant in the training of rapid force, and we can train them according to the concept (strength in power)."(Saad 1:44) thus gave a positive impact in improving the results of the muscle force dimension tests and achievement in the 2 00m event. And the results were logical.

3-4 Presentation and analysis of the results of muscle strength and achievement between the control and experimental groups in the Post-test: -

Table (6)

Shows the results of the differences in strength indicators characterized by speed and achievement and value (T between the two research groups)

variables	The command group		Experimental Group		(t) Calculated	The level of morale	Indication of differences
	A	STD	A	STD			
Power with speed (ridge)	9.205	0.141	9.405	0.092	3.313	0.008	Sign
Strength of speed(belly)	20.50	1.048	22.500	0.547	4.140	0.002	Sign
Achievement 200m	25.170	0.393	24.398	0.344	3.613	0.005	Sign

Degree of freedom (10) and level of significance 0.05

3.5 Discussion of the results between the experimental and post-testing groups:

The results of the analysis of statistical data obtained using the test(T)independent samples to determine the moral differences between the experimental and control groups in the Post-test showedthe presence of statistically significant differences in the strength characteristic speed and completion of the run of 200 m and in favor of the experimental group, and the researcher attributes this difference to the experimental group at the expense of the control group to the use of ballistic force exercises in the method of training varied had a significant impact on the development of the force marked speed and achievement He ran 200 m as the muscle strength of the most important requirements of running (200 m)and here confirms both(Qassim Hassan and Samir Moustal) "The body of the runner in the ran of the bow is exposed to two forces: the repellent force that removes the body of the runner from the arc and expels him from the center, and the central force that pulls the body of the runner to the center, and in order to be run the bow must be the repellent and central forces equal. Qassim Hassan and Samir Msalt stress that "the faster the hostility, the greater the exorcism, and that the body's tendency inward leads to reduced repellent force and maintains speed" (QassimHassan and Samir 2:8) so that this type of exercise has worked to make changes required in the muscles, especially the working muscles of the legs and abdomen, and when the muscle is subjected to a certain intensity that exceeds its normal capacity, it responds to some degree of intensity, which, if it is greater than its capacity, is sufficient. Natural lysupplattering effectively and become stronger as there is a temporary decrease in the ability of the muscle after performance, so it needs a recovery period, but it quickly restores itself and achieves a greater level of muscle strength, and this happened to the experimental group as a result of the differentiated style, as "carrying training is the main means of influencing the individual and leads to the upgrading of the functional and aesthetic level of the organs and organs of the body, thus developing and developing physical attributes, motor skills, abilities, plans and voluntary traits" (Mohammed 3) 51), since the use of different training has a role in basic movements such as running, jumping and jumping and working on the athlete's continued ability to work and perform, and this is consistent with what (Mohammed Hassan Allawi) pointed out "is the temporal relationship between the periods of pregnancy and rest during the trainingunit or when performing a set of exercises, which is an important basis for ensuring Restoring the individual to his normal state (recovery), thus ensuring the continuity of the individual's ability to work and perform, accept more and carry training and determine the length of the rest period according to the severity and size of the pregnancy, and as a general principle the individual must reach at the end of the rest period to the point of being able to repeat the next exercisnormally" (3 Muhammad:53).Therefore, this type of training has worked to make required adjustments in the muscles and therefore includes ensuring this training on the best modern scientific means to achieve the desired goal and the results were logical.

Conclusions and recommendations

4.1 Conclusions:

- 1- The adoption of ballistic force exercises in the different training style develops the strengthof the muscles of the legs for the200m event for young people.
- 2- The adoption of ballistic force exercises in the different training method works to develop the strength of the speed of the abdominal and back muscles for the 200m event runners for youth.

- 3- The adoption of ballistic force exercises in accordance with the different training method works to achieve the runners of the 200m event for young people.

4.2 Recommendations:

- 1- Ballistic force exercises should be based on the different training method of rapid kicking instructors.
- 2- Diversity in the use of modern training methods and various and appropriate training methods works to break the deadlock and develop performance.
- 3- Conducting studies similar to other athletics events.

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