

THE EFFECT OF SPECIAL EXERCISES IN STRENGTHENING THE WORKING MUSCLES TO IMPROVE THE STARTING ANGLE AND ITS EFFECT IN COMPLETING THE DISCUS

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ABSTRACT:

That scientific progress in the world at the present time has been and remains one of the main reasons for the advancement of human life through scientific planning programmed and thoughtful and contributed to the achievement of human goals, as this progress included all areas of life, including sports, and the effectiveness of discarding events Which requires the study of physical abilities and the relationship of training to improve the starting angle because of the impact in the development of achievement through the distance achieved, which must be used in the service of the achievement of sports for this effectiveness, which requires careful study about the performance of motor and the consequent correct technical performance To achieve the best achievement so the importance of the research in the focus on the strength training of disc protractors of the angle of departure, which is linked to exercises based on the principle of strengthening and improving the range of the muscles of the firing stage to achieve the ideal corner in the throwing, if the researcher to prepare a special exercise to improve the range of motor by targeting the working muscles The sample consisted of (10) players from the youth team to throw the disc. They were chosen by the intentional method by diagnosing the correctness and follow-up by the researcher. The researcher developed a set of special exercises to improve the motor range of the starting angle by targeting (8) weeks per week (3) units per week, training time (40-45) minutes, weekly training days (Wednesday, Friday, Monday). The researcher concluded that the application of special exercises has a positive effect In the improvement and strengthening of the working muscles of the members of the research sample and it was clear through the results of the test of tribal and remote, which showed results that indicate an evolution in the balance of power between the working muscles and their impact on the ranges of motor to improve the starting angle, and recommends the researcher to use special exercises for the subject of study in improving The correct angles of During the development of the motor range by strengthening the muscles working on these ranges.

INTRODUCTION :

That the scientific progress that the world is witnessing at the present time has been and remains one of the main reasons for the advancement of human life through scientific planning programmed and thoughtful, which contributed to the achievement of human goals, as this progress covered all areas of life, including sports.

The field of sports training is at the forefront of the areas that have developed significantly in recent times. This development included all kinds of sports and different types that will develop the working muscles and the effect of achieving the highest achievement in all kinds of sports, as

well as studying the vulnerability and treatment in various ways.

The throwing activities are of interest to researchers and stakeholders in finding the ideal models for the performance of these games, as well as studies that included knowledge of the impact of physical abilities in the performance of each effectiveness, and the effectiveness of discarding of events that require study of physical abilities and strength and speed must be Mocking the service of the achievement of the sport of this activity, which requires careful study of the motor performance and the typical motor range and the right of the conditions and

laws of Baymknip to reach the correct technical situation to achieve the best achievement so the importance of research focus on training Force special archers disk angle associated with the starting exercises based on the principle of muscles that improve range of motion, and to know the extent of its impact on the development of the completion of the development of the discus.

MATERIALS AND METHODS:

Research Methodology:

The researcher used the experimental approach to design the two equal groups, arguing that experimental research aims at "making a deliberate and precise change to the specific conditions of an event while observing the factual changes in that event and interpreting them.

Search community and sample:

The original research community (10) players from the youth group who represent the society of the total search of the players of the national team for the year 2018-2019. The researcher randomly selected all of them as his sample for his research, which accounted for 100% of the research community.

Means of gathering information, tools and devices used in research:

- Studies, research, scientific reports and publications on the results of the competitions issued by the International Federation of Athletics.

.Technical observation and experimentation -

.Personal interviews -

.Tests and measurements -

Search tools:

Throwing tablets are 22 different weights (1 kg, 1.5 kg, 1.750 kg)

- Camcorders 3 Japanese type Casio camera speed of 120 to 1000 images / sec.

.Tripod for camera number 3 -

- Weight in the form of medical balls 10 different weights (1 kg, 1.5 kg, 2 kg, 3 kg and 10 iron bars weighing (2.5 kg, 3 kg)

- Measure length 1m to find the true value of the distances shown in the film analyzed by the special analysis program.

- Weights added in the form of belts or couplings of different weights (200 g to 5 kg)

)Short rubber cords (10 -

.Stools and benches of different heights -

.Phosphorous signs -

.Metal measuring tape length of 50 meters -

.Stopwatch number 2 -

.Whistle -

.Camcorder type Sony 25 kbps Japanese-made type W370 -

.- Electronic scale for measurement of block type (Ketecto) Japanese-made

Tests used in research:

Discus completion test:

- Objective of the test: measuring the best horizontal distance cut by the disk (achievement)

- Performance description: The laboratory performs the firing according to the International Law of Athletics, the disc is thrown inside the sector allocated for throwing, and given to the laboratory 3 attempts to choose the best achievement of these three attempts.

:Main experience

Tribal Tests:

The pre-test of the sample of the research team was carried out on 28/3/2018 in the squares of the talent center. All the conditions related to the tests in terms of tools, time and place as well as the method of implementation were taken into account to provide the same conditions in the remote tests as possible.

:Special exercises

In order to achieve the objectives of the research, the researcher developed a series of exercises "the method of performance of the installation - relax with the contraction of the muscles of the motor, which includes this method the performance of the contraction of the first isometric of the muscles working and the other muscles of the antibody, and after the prolongation of negative and isometric contraction of the muscle working for (7-15) (2 - 3) second, after a first negative lengthening accompanied by contraction of the extended muscle isometric for 7 - 15 seconds, followed by relaxation of the muscle accompanied by an isometric contraction of the antibody for (7 - 15) seconds, Relax all muscles for 20 seconds before t Exercise decision again"

As well as using country-style exercises with rubber bands. The researcher relied on the scientific sources available and his use by the experts in the field of sports medicine in the selection of ways to use special exercises for the force and with the help of special means and tools. The duration of the training modules was 8 weeks with 3 units per week.) Minutes, weekly training days (Saturday, Monday, Wednesday)

The exercise method was applied to the experimental research group, which includes muscle stretching exercises

by assisting the trainer F through the player using the rubber tapes in the Qatari way with a severity of (70-80%) and repetitions of (4-10) 5) and rest periods (30 th-60 tha)
: Remote tests

Post-tests of the research sample were conducted on 29/5/2018 in the special hall of the Center of Talent, as well as the researcher's keenness to provide the conditions and requirements of the tribal tests themselves in terms of time and space and the auxiliary team.

RESULT AND DISCUSSION:

Table (1) Results of differences between the computational circles of the achievement variable between the tribal and remote tests of the two research groups

The error level	(T) calculated	P	-	P ±	s	the test	Variables
D.	0.006	5.34	1.28	3.08	1.49	Tribal	Achievement (m)
					2.68	after	
Gerald	0.112	2.031	0.849	0.77	0.73	Tribal	
					0.63	after	

The degree of freedom (4) and the error level 0.05 0.05

Table (11) shows that the average differences between the tribal and remote arithmetic domains of the experimental group were 3.08 with a standard error of 0.576 and the calculated value of (5.34) below error level (0.006) , And this indicates that the differences were statistically significant between the tribal and remote tests and for the post-recovery of this group in the completion of discus

(0.68)with a standard error of (0.375). The calculated value of (1.81) was below error level (0.079) which is greater than (0.05) indicating that there are no significant differences between the two tests Tribal and remote to achieve the control group to throw the disc.

Table (2) Statistical parameters of achievement and values (v) between the two groups for remote tests

Delusion	Error level	Calculated value	Experimental		Officer		variable
			p±	s-	p±	s-	
.D	0.014	3.150	2.68	37.20	0.63	33.24	Achievement

The degree of freedom (8) and the error level 0.05 0.05

CONCLUSIONS:

Table (12) shows that the value of (T) of the achievement variable between the two tests of the two groups reached (3.150) below the level of line (0.014), which is below the level of significance (0.05), indicating that the differences are statistically significant for the test after the experimental group

Strength training exercises should be as similar as possible with the movements of the body used in sports activity or skill, which were performed with the same exact level of motor movement, direction, range of joint movement, and speed of throwing motion (1) has helped the development of movement paths and strengthened (Rachid, 2004)

suggests that "the need for harmony between special force exercises and the requirements of effectiveness to obtain the best technical performance of the moto. "

On this basis, the researcher believes that the thrower must exert power in sequence and follow the appropriate timing from the bottom up and invest the muscle work of the body massages in order to serve the speed of movement with the economy effort, so the Rami is used initially the large and slow muscles in the trunk and thighs followed by faster and less powerful The relative strength of the two legs, the chest, the arms and the hands, and the kinetic force, is obtained by the force of the force, so the extruder has acquired the greatest speed after the feet and the hands have produced the required force at the end of the firing movement. Affects the speed of departure that greatly affects the achievement.

As the researcher attributed this development to the exercises used by the experimental group, which aimed to develop the force that affects the speed as well as the speed of the corner of the body parts and the speed of departure guaranteed by the approach as the variable speed of the disk instantaneous release of the hand of the most important key Kinnamatik variables affecting the achievement achieved Equal to the sum of the forces exerted in the different directions of the members participating in the firing performance, which is the acceleration of the incremental acquisition of the disc from the rotation and the correct dynamic sequence of the movement of the shooter, especially the position of throwing (power mode), which achieves Mar forces aimed all the right direction that ensures greater speed of the start of the disk to get the best achievement Verifier □ 1□

The exercises used by the researcher, which relied on the number of repetitions and movement speed, as well as the use of various strength exercises with added weight and the training of elastic cords and repetition gave positive in strengthening the muscles of the trunk and arms with improved compatibility of the movement of the two men, during the speed of transition as a result of the work of muscle contractions of muscles (Mohamed Hassan Allawi and Abu El-Ola Abdel-Fattah) that "the possibility of muscle laxation contributes to the increased speed of motor performance of the exercises used" (2) and that these For exercises that have contributed to the development of muscle capacity in the movements of tides and folds that depend on the performance of the movements of the throwing on the force to cut the body by the force of a specific distance as low as possible, and this indicates the

development of these muscles within the ranges of performance of performance based on the shed strength during the joints Which gave an understanding of the evolution of the rapid and explosive force of the members of this group during what was cut in a large distance in the short bursts of frequent instantaneous that "most of the methods of development of force comes not because of special training, which depends on the training of contractions to prolong And the lack of muscle, especially with young and young, it gives a clear difference in the level of muscle strength () This has enhanced the development of rapid power and impact in achieving the achievement requirements achieved by the members of the experimental group, and agrees with what stressed (Abdel Ali Nassif) that " The similarity of the main movements "() enhances and develops the characteristic strength of speed according to performance and improves achievement.

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