

The Effect of particular exercises by using aids to develop the special endurance and the achievement of 400 meters for young athlete

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Abstract

View the researchers an introduction to athletics , especially the effectiveness of 400 meters and took the trainers and researchers are looking for better than that can serve the training process and increases the development of the figures, and eliminated the problem low use of special exercises using means of assistance also aims to identify the special exercises using aids in the development of your endurance the effectiveness of (4 00 m) for juniors and has assumed the researcher Wen there are significant statistical differences in the endurance of the private and achievement between the pre - test and post for the research sample included a sample search (4) runners for the junior class in the province of Baghdad in the effectiveness of (4 00 m) has been used researcher One experimental approach to the sample's (4), research was conducted cardiac tests on 16/ 6 /2019 17/ 6 /2019 was the formulation of the training curriculum and then it started for a period of 8 weeks after was conducted posteriori tests on 13 / 8 /2019 14 / 8 /2019 were then calculated the results of search variables. The researchers used the statistical bag (SPSS) and through the presentation of results, analysis and discussion of the physical capacities and achievement and discuss the scientific debate to achieve the research hypotheses.

Keywords: special exercises, endurance, achievement, 400 meters, young adults

Introduction

The process of developing achievement in sports is one of the tasks that requires continuous and continuous research to get away from the stalemate and stopping and we find in most athletics activities, including the running event 4 00 pm We find the actual need for this development because the Iraqi achievement in this event has not changed for a long time and has presented researchers and trainers Several great efforts in this field. Through the attention of the researcher Wen in this event being of coach yen in the activities of speed found a lack of focus in your endurance for a hostile 4 00 m free for young and lack of interest in the development of this capacity speed and holds power by the workers in the training of this group , the researchers preparation exercises affecting using the means of assistance are based on scientific and objective grounds to raise the level of development and the development of your endurance and the completion of the enemy 400 m free of the junior experiencing modest levels in comparison to the international level. (Nouri, 2004) Research objectives are: The preparation of special exercises using means of helping to develop the effectiveness of your endurance enemy 400 m junior. Identify the effect of exercise for developing your endurance and the completion of the enemy 400 m resulting yen. (Firdaws, 2012) Hypotheses of research are: There are statistically significant differences between the pre and post tests for the special tolerance of the individuals in the research sample. There are statistically significant differences between the pre and posttests in completing a 400-meter enemy for the individuals in the research sample. Areas of research: human field: elite athletes from the emerging yen in the province of Baghdad for the season 2019. Field Temporal: from 9/6/2019 until 14/8/2019. Spatial domain: Specialized School Stadium / Ministry of Youth, Baghdad Governorate. (Issam, 1999)

Literature review

The sports level that all sporting events, including athletics, has reached is the result of scientific progress the world is witnessing in recent years, and this is the result of the use of modern methods and methods in sports training and the effectiveness of 400 AD is one of the activities covered by this progress from what emerged from the qualitative achievements in Olympic and global competitions of , and at the same time no secret of the people of experience and familiar on sport for the extent of the positive impact of the modern means of assisting workers in the training process to change the training patterns and rely on scientific and

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modern methods, which contributed to the progress witnessed in many sports competitions during the In recent years, (Macardle, 1981) the effectiveness of 400 m is considered one of the fast-running activities with difficult requirements in terms of special physical capabilities required to achieve the achievement, because it is performed with extreme intensity and under extreme given that it is a relatively long distance, so the development of achievement in it needs to, and to improve many of Physical traits and capabilities and their development, the most important of which are special endurance (bearing speed, bearing strength, bearing performance) of L It has an effect in the physical aspect of what is characterized by the competition of 400 m in terms of performance, which requires the performance of the distance of this race to be performed at the highest possible speed with a great deal of speed and strength. (Shapiro, 1984) This has led to the use of many modern training methods that aim to improve and improve the physical capabilities of this Effectiveness and in order to achieve further development and improve the travel time of this distance. For this event must use modern training methods based techniques on scientific grounds suited to the age group of the study, and the most important means of rubber tape and weights added to the parts of the body, as well as exercises jumping exercises for speed, lies the importance of research in special exercises using the use of assistance means in Training the runners and its impact on the special endurance that can help us advance the Iraqi digital level and then raise the achievement towards the Arab and international level. (Abul-Ela, 1996)

Methodology

Research procedure: The researcher used the experimental approach to its suitability in designing one group to solve the research problem.

Research community and its sample: The researcher Wen choose the sample purposively they represent the province of Baghdad junior category for the sports season 2019 - 2020 effectiveness 400 m's (4), which represents athletes won 100% of the original community.

Tools and devices used in the research: Electronic calculator, Laptop Type hp1 x CD, Number firing device (1), an athletics field with international legal dimensions. Electronic watch timer China origin number (4), belt wrist and ankle (4), rubber bands number (2), jacket number (2).

300m test (Muhammad, 2001) The goal of the test is to measure the special speed tolerance, the two runners stand behind the starting line from the high standing position, and upon hearing the starting signal the two runners start to cut the test distance which is 300 m at the fastest possible speed and when reaching the end line the hours are stopped and recording, the time is calculated for the nearest (part From the second) for each one-time runner and placed in the special form.

Test running by jumping (Pawnz) 150 A.D.: The goal of the test is to measure carry your strength, stands Alaada #NAME behind the starting line of standing trade me, and when you hear the start signal runners to cut the distance of a start not test a 150 m ran to jump properly motion and when you reach the finish line is stopped hours' time is time calculation is not near (part of a second) for each runner once. (Qais, 1984)

The completion test of 400 m: The goal of the test is to measure the achievement of 400m freestyle Runners stand behind the starting line from the sitting position and when you hear the start signal from the beeper the two runners start to cut the test distance which is the enemy 400m and when reaching the end line the hours are stopped and time is calculated for the nearest (part of a second) for each runner.

Exploratory experiment: The exploratory experiment "is a microcosm of what will be applied on the actual implementation of the tests, as they are this small sample of the society in which they will apply the tests" (Nouri, 2004) In order to avoid the difficulties and obstacles that may face the researcher Wen during the implementation of the main experiment, to identify the strengths and weaknesses of the work and its suitability, and to be working accurately conducted researcher exploratory tests promptly at five pm on Sunday a brief summary (9/6/2019) for runners from members of the research sample, which was on the playground and the Ministry of youth school specialized.

Pre-test: It was conducted tribal tests to sample promptly at six pm for two days considered from 16/6/2019 which falls on Sunday to 17/6/2019 which falls on Monday in the Tinned specialized school and the Ministry of Youth and sought the researcher to identify the conditions relating to all of the tests in terms of time, place and tools And the way to implement the tests and to create the same conditions as the post-tests, where the following tests were conducted on the first day, physical abilities on the second day, achievement.

The training program: The researcher Wen set up exercises for using the means to help to develop your endurance (bearing speed and carry power) and the specificity of the effectiveness of 400 m Nash #NAME in terms of age training category selected as well as field experience researcher Wen, and what findings the experiment exploratory tests tribal, and have been identified field procedures for the application of exercises began applying exercise at five on the afternoon of Wednesday 19/6/2019 in the stadium and the Ministry of youth and Sports / a Hot exercise on (16) and a training unit. Applied exercise on the research sample for a period of 8 weeks, by (2) united Tin training week unit of the carrying speed and the unit to withstand the force carried out in the days (Sunday and Wednesday) carrying the speed and Sunday and Wednesday carrying the power of each week. And it was implemented in the main section of the training unit during the special preparation period and the pre-competition period, because during this period, exercises in it that are similar in composition in terms of specificity of effectiveness and installation of motor performance of strength and speed should be given, as well as the direction of muscular work in them with those movements

that performed in the competition to develop the physical and kinetic qualities of the activity sports (22: 4) time performance exercises to withstand the speed and carry power in each unit training (3 5 -4 5 minutes) the intensity used in the training curriculum is (80% to 95%) In special speed endurance training according to the method of high-intensity and repetitive junior training and in special strength-endurance training (65% to 80 %) according to the method of low and high intensity training, these stresses were determined in light of the results of the pre-test and pre- test tests of the research sample. Additional weights were added to the body weight of the legs and arms, and the weight ratio was determined according to the following formula: the real weight of the part = body weight x relative weight/100

Posteriori tests: The researcher conducted a Meta - tests on the sample promptly at six pm for two days at 13/9/2019 which falls on a Tuesday, and 14/9/2019 which falls on Wednesday and conditions of cardiac tests themselves.

Results

1. Present the results of the physical variables, analyze and discuss them

Table (1) Displaying the arithmetic mean and standard deviations of the search variables during the run of 400 m. Cardiac and posttest tests of the research sample

Search variables	measuring	distance	Pre-test		Post-test		Values (T) Calculated	Statistical significance
			Arithmetic mean	standard deviation	Arithmetic mean	standard deviation		
Endurance speed	M / t	300 m	38 , 13	0.57	37.39	0.56	4.19	moral
Run test jump	M / t	150 m	26,507	2. 134	25,09	1. 825	6. 84	moral
Achievement	M / t	400 m	53.89	0.56	5 1 94	0.43	8.9	moral

With a degree of freedom 4-1 = 3 and significance level of 0.05

Through table (1), we found the results of a 300-meter run for the research group, as the arithmetic mean in the tribal test reached (38.13) and with a standard deviation (0.57), while the mean value in the post test (37,39) reached a standard deviation (0.56) After using a test (T(The differences between the pre and posttests reached a value of (T Calculated) 4,19 (while the real significance was)0.00It is smaller than the value of the significance level (0,05) under the degree of freedom (3), which indicates the existence of significant differences between the pre and posttests in a 300-meter run and in favor of the post-test by applying special exercises and a variety of running and strength training and the running included different distances in different ways and were distances of 100 m 200 m 300 m and of different sizes depending on the intensity of training has been relying on the development as well as emphasis was placed on carrying speed in using jackets and rubber ligaments as well as jumping (when exercises for the fact that the size of the resistance is similar to a race or higher by 4-5 % when using exercise special assistance can resistance size up between 60-80% of maximum power), (32: 5) and that training and strength and withstand the force applied to the experimental group match the viability of members of this group , as indicated (Macardl) (268.6) that "privacy training occur special adaptations are generated from the special training process". the exercise of the special effects used by T. a by the researchers my way of training high - intensity interval and repetitive periods on the legalization of comfort between the appropriate frequencies to develop test 300 CE, relying on this modern scientific method, and in line with modern methods of training used in various mathematically developed countries. Through table (1), we found results of a 150-meter jump running for the research group, as the arithmetic mean in the tribal test reached (26,507) and with a standard deviation (2,134), while the mean value of the post-test (25,09) standard deviation (1 , 825) and after the use of the test (T) The differences between the pre and posttests reached a value of (T(Calculated) 6 , 84 (whereas the real significance reached)0.00) Which is smaller than the value of the significance level (0.05) under the degree of freedom (3), which indicates that there are significant differences between the pre and posttests in ran 150 jumping in favor of the posttest , the researchers attribute these differences to the use of the means, which were distributed weights where On the parts of the body, each according to its weight. The training curriculum included vocabulary that helped to use different loads and intensity as well as enough distances to achieve the increase in the performance load enough to stimulate the physiological processes. This all helped to improve the work of the respiratory and periodic systems. Researchers believe that this increase in sizes and intensity of exercise Each according to its maximum intensity, the ability of the athlete during the process of graduation and spikes throughout the duration of the training curriculum to adapt his functional equipment, and this is consistent with what he indicated (Shpirolm "Increasing the intensity of training in proportion to the capabilities of the athlete may show a high degree of adaptation." (Shapirolm, 1984) It is mentioned (Muhammad, 1999) "The training curricula whose success is measured by the extent of progress achieved by the individual athlete in the type of sports activity practiced. Through the skill, physical, and

functional level, this depends on the adaptation that the individual achieves with the training curriculum. (Muhammad, 1999) Through the table (1) show us the results of authorized 400 m t research group reaching the arithmetic mean of the test tribal (53.89) and standard deviation (0.56) As was the arithmetic mean value in the posttest (51.94) standard deviation (0.43) and after the use of the test (T) The differences between the pre and posttests reached a value of (T Calculated) 8.9 (while the real significance reached) 0.00 It is smaller than the value of the significance level (0.05) under the degree of freedom (3), which indicates the presence of significant differences between the pre and posttests in a 400-meter run and in favor of the post-test. The researchers attribute the results. There were significant differences between the pre- and post-test and were in favor of the test dimensional and that there is a development in the level of recipe (special endurance) through special exercises that put researcher Wen , which led to the development of the enemy completion of 400 m for the research sample, so blame the researcher to raise the status of (private) for endurance effectiveness has led to the development of the (test 300 m and ran by jumping 150 m) which led to the improvement and upgrading sports and the development of an enemy 400 m completion, hence the researcher believes Wen that exercise special for using the means of helping great importance in improving the level of achievement of digital "to adjust the sports training load and the duration of comfort increase or decrease aimed access To the appropriate degree of hostilities required to upgrade them " (Mufti, 2010) . Also, the length of time it took to perform the regulated exercises was sufficient to bring about this change for the better, because any change or adaptation requires a time period to effect an impact on the body's functions that later affects the level of performance and this is confirmed by (Abul-Ela, 1996) who states that "most of the changes resulting from the training occur during the first period of the program within 6-8 weeks." The researcher sees this development to the exercises that have been implemented using the aids to develop the ability to bear speed and endure The strength and development of these capabilities through the vocabulary of the training curriculum used by researchers , which contributed to the development of the achievement of the enemy 400m for the runners of the research sample, because these capabilities are among the basic capabilities that contributed greatly to improving the achievement and its development.

Conclusion

The use of special exercises using rubber bands, weights, added weights and a jacket was effective in developing special endurance (bearing speed, endurance of strength (through the application of special exercises that were positively affected and speed, which led to the development of a positive achievement and should focus on selecting the appropriate exercises according to Modern training aids for all speed events.

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