

Accomplishing of the (60) m Competition and Its Relationship to the Most Important Physical and Motor Abilities of Young Runners

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ABSTRACT

The study's goal was to know the most important physical and agility of (60) metres young riders and to know how the most important physical and motor skills lead to the end of the (60) metres of competition for young riders. The research community identified young runners for the (60) m competition in the central Euphrates provinces, whose number is (13) runners. A sample of (12) runners was randomly selected from them, and each runner was given (6) attempts so that the sample size becomes (72) attempts.

After completing the process of testing and measuring the search variables, the research results were extracted after statistical treatment. From them, the researchers reached several conclusions, the most important of which were the following:

- The achievement of five physical and motor skills most necessary for young riders (explosive capabilities of both men, distinctive strength of both legs of the speed and distinctive strength of the speed, versatility of both legs of the arm, agility) out of (9) physical and engine abilities) to complete the (60) metre competition.

The researchers came up with recommendations, the most important of which are:

It is necessary to know the most important physical and motor abilities to accomplish the young runners of the 60-meter Sprint competition.

- It is necessary to focus on developing the essential elements of runners, especially the most important in performing speed competitions, including (the explosive ability of the two men, and the distinctive strength of speed of the legs and arms, flexibility of the legs, agility).

Keywords

The Achievement of the (60) m Competition, the most important physical and motor abilities, Young Runners.

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Introduction

The tremendous scientific development that our world is witnessing has begun to occupy thinkers and scientists' opinions to reach the highest levels and ranks in development at various levels. Whenever he achieves a degree on this ladder, he finds other degrees in front of him, so man strives to obtain what can be achieved.

Accordingly, scientific progress has included all sports, including athletics. In recent times, this sport has witnessed the achievement of new world records and qualitative leaps on an ongoing basis, which has increased its importance and the diversity of its competitions, which differ one from the other in terms of characteristics and components and the games it contains. (Running, jumping, throwing) The competitions involved under the banner of each of them made many keen to practice them and harness their efforts to advance them. Among these competitions is the running competition (60) m, which is

characterised by maximum speed and high components of physical and motor abilities.

Through following-up study, practice and direct contact with this competition, and after reviewing many studies and research, the researchers found that the achievement revolves around the physical and movement capabilities that characterise the hostility and the extent of the relationship between them. Hence, they found a need to enter into this scientific problem and study it to clarify the relationship between the most important physical and motor abilities. Concerning the completion of the Sprint competition (60) to enable the trainers to develop scientific solutions related to the integration and interdependence of these capabilities with each other and focus on the ability that appears defective to develop it and diagnose those whose relationship to achievement is weak. In other words, dealing with capabilities is according to their relationship to develop sound training

curricula that are not based on random or guesswork.

According to this report, the relevance and the relationship between research and the completion of Sprint competition (60) metres in understanding the critical physical and motor skills. This relationship will help trainers determine appropriate training methods to serve the training process and improve the competition's achievement.

Research Methodologies

The researchers used the descriptive approach in the survey method and the interrelationships for their relevance to the problem's nature. As the descriptive method (represents a scientific diagnosis of problems or phenomena as far as objective tools are available, this diagnosis is expressed in linguistic and mathematical symbols controlled according to a tight organisation). (Al-Kandari, Abdel Dayem, 1999, 113)

1.1. Research community and sample

The selection of the sample is one of the essential steps and stages of the research, and the nature of the research is that which controls the sample of research, which is a group that is examined or monitored for the experiment to be carried out and is composed of one person or two persons or more (Al-Tai, 1988, 116). Therefore, the research community identified young runners for the enemy (60) m contest in the central Euphrates provinces, whose number is (13) runners, from whom a random sample of (12) runners was selected.

1.2. Tools, means and devices used

For their study of these instruments, researchers have used a metal tape measurement (questionnaire, interview, testing and measurement), a 60-picture/second (national) video camera, a Princo CD(3), a manual stopwatch. The search aids are sewan type, HP laptop, player score shapes, data discharge forms.

1.3. Field research procedures

To achieve the objectives of the research, the researchers had to take the following measures:

1 - Determined and presented the most important physical and engine ability by (15) questionnaire form to (9) the experts with (60) m of (the maximum strength of two men, the carrying strength of the two men, the maximum strength of

the weapons, the explosive power of two men, the maximum strength of the arms, the most significant physical and motor skills. And after statistical processing of the questionnaires data, she ran (5) Abilities because they achieved the required criterion, namely: (the explosive power of the two men, the distinctive force of speed for the two men, the distinctive strength of the arms' speed, the flexibility of the two legs, agility).

2- For each test, a questionnaire was presented to show each to (25) expert's validity. Following the test processing of the findings (Ka2), one test representing the candidate's work capabilities was selected by (5) tests. In the case of (21) tests, the acceptability level is shown as its value computed is higher than the table number (3,84). (0.05). (0.05). The value (ca2) compiled for the testing (wide jumping from the stability - representing two legs of explosive force - 14.44), and the test for the speed of the two legs - velocities of (10) seconds, and (bending) arms spread from the front of the bracelet, representing the speed of the bracelet, within (10) seconds of the test. The arms spread out from the bracelet's support (the Zakzak ran between the persons in numbers - it is representative About Agility - 14.44). For each ability study, a test is carried out.

3- The researchers conducted an exploratory experiment on 6/10/2020 with (6) players randomly selected for multiple purposes, including: (Determining the difficulties facing researchers, ensuring the safety of devices and tools, knowing the time each test takes as well as time. The total of all the tests, the adequacy of the assistant work team, the validity of the candidate tests and their scientific foundations, the sample's willingness to perform the tests, ... and others). This experiment's results resulted in (the validity of tests, devices and tools for work, overcoming many difficulties, the appropriate period to implement the main experiment (5) days, the number of staff members is sufficient and qualified).

As far as the scientific basis for the tests is concerned, experts have obtained the apparent validity and consistency by testing the arbitrators on 6/16/2020, and the objective results are presented in the table below:

Table (1)

It shows the stability and objectivity coefficients and the maximum random value of the tests correlation coefficient

T	Physical and motor abilities	Tests	measuring unit	Stability coefficient	Objectivity factor	Great, random value of the coefficient
1	The explosive power of the two men	The long jump from stability	Meter and its parts	0.92	0.91	0.81
2	Distinctive power as quickly as the two legs	The long jump forward for (10) seconds	Meter and its parts	0.86	0.84	0.81
3	Distinctive power as quickly as armrests	Front Support - Bending and Extending the Arms - The Maximum Number in (10) seconds	The number of times	0.87	0.86	0.81
4	The flexibility of the two legs	Bend the torso forward from standing	cm	0.90	0.89	0.81
5	fitness	Zigzag jogging between barriers in numbers	The second and its parts	0.89	0.86	0.81

By comparing the values of the stability and objective coefficients of the test results with the corresponding maximum random value at a sample size of (6) and a degree of freedom (4) and a significance level (0.05) of (0.81), we find that it is significant and statistically significant Which indicates suitability for the sample.

4- Conducting the main experiment in which the results of the tests concerned with measuring the most critical structural and kinetic capabilities of the research sample were obtained, as well as conducting a test for the Sprint competition (60) m within its legal conditions by placing an absolute near the starting line and a video camera covering a distance of (60) meters to know the competition time for each runner. What is worth noting is the opportunity for each runner to perform the exams concerned with the search six times in a row, separating every two performances a whole day for the contestant to recover from the previous performance. With this, he obtained a sample of (72) attempted execution of the race,

which (12) runners executed. It has been implemented for the period from 25-29 / 6/2020.

1.4. The statistical methods used:

The researchers used a set of statistical methods to achieve the research objectives, including (the arithmetic mean, standard deviation, Ka2 test, correlation coefficient (Pearson and Spearman). (Al-Yasiri, 2011, 127-295).

Research results, presentation, analysis, and discussion

1.5. Presentation, analysis and discussion of the results of arithmetic means, standard deviations, and the value of the simple correlation coefficient of the research variables tests

Table 2

It shows the arithmetic mean, standard deviations, and the value of the simple correlation coefficient for the most important physical and motor abilities tests and the completion of the (60) m competition for young runners.

T	Physical and motor abilities	Arithmetic mean	standard deviation	Competition	Arithmetic mean	standard deviation	Correlation coefficient value		Statistical significance
							Calculated	Tabular	
1	The explosive power of the two men (Long jump from stability) The meter and its parts	2.563	0.122	Running 60m	7.082	0.109	0.983		moral
2	The power of two men's speed (Long jump forward for 10 seconds) The meter and its parts	32.875	2.215				0.989		Moral
3	The power of the two arms with speed (Front support - arms bending and extension - the maximum number in (10) seconds) the number of times	14	1.301				0.976	0.23	Moral
4	The flexibility of the two legs (Torso bend)	13.894	2.624				0.858		Moral

	forward from standing) cm							
5	Agility (Zigzag jogging between barriers in numbers) The second and its parts	10.016	1.028			0.941		Moral

The randomness value of the correlation coefficient (0.23) at a level of significance (0.05) and a degree of freedom (70)

By observing in the table (2), it is found that the arithmetic means of the two men's explosive power test is (2,563) and the default deviations are (0,122) and that the arithmetic means of the opponent is (60) m (7,082) and the standard deviation is (0,109), while the single correlation coefficient value measured is (0,983). (70). This study indicates that there is a significant correlation between the explosive ability of the two men and the achievement of competition (60) m for young runners.

The table also shows us that for both men (32.875) and for standards (2.215), the arithmetic medium of the speed test is of a value of (7.082) and the standard deviation is (0.109), and for the calculated single correlation coefficient, the value is of (0.989) more significant than the maximum random value of the calculated simple correlation coefficient was the same: (70). This indicates a significant correlation between the strength of the characteristic velocity of the two men and the achievement and achievement of the competition (60) m for young runners.

The table also shows that the arithmetic means value from the characteristic strength test at the speed of arms (14) and the standard deviation (1,301), the mean value of the enemy arithmetic (60) m (7,082) and the standard deviation (0,109), while the value of the simple correlation coefficient calculated is (0,976). (70). This indicates that there is a significant correlation between the force characteristic of the speed of the arms and the achievement of the competition (60) m for young runners.

We also find in the table that the value of the arithmetic mean of the two men's elasticity test was (13.894). The standard deviation (2.624), the mean value of the enemy (60) m was (7.082). Although its value was higher than its standard (0.109) value (0,856), the flexibility between the two men and the completion of the competition for young riders (60) m were substantially associated with their random maximum value (0.23) at significance level (0.05) and freedom level (0.05) the calculated single correlation coefficient (70).

Finally, table (2) shows that the mean value of the agility test is (10.016) and the standard deviation (1.028), the mean value of the enemy (60) m was (7.082) and the standard deviation (0.109), while the value of the computed simple correlation coefficient was (0.941), which is Its most outstanding random value of (0.23) is at the level of significance (0.05), and the degree of freedom (70), and this indicates that there is a significant correlation between agility and the completion of a competition (60) m for young runners

From all that was mentioned above, we find that the relationship between completing the (60) m competition for young runners and their most important physical and mobility abilities is high, moral and statistically significant, even if it differs in the amount of the values of its transactions. This is a matter that explains the difference in the percentages of each contribution to the achievement.

1.6. Discussing the results of the arithmetic means, the standard deviations, and the value of the simple correlation coefficient of the search variables tests

Table (2) shows that we have a major link between the two men's explosive capability and the achievement in the competition (60 m) for young riders and, as the riders are characterised by the two men's explosive capability to start at high speed and strength. Furthermore, the skill of the rider is replicated at any moment of momentum, starting from the start and the following moves (Hussam El-Din 1993, 380). The greater the force and its liberation in the shortest possible time, the more it would be possible to overcome the resistance, especially in the stage of starting and starting and reaching the maximum speed (Shafaa, 2005, 29).

Also, it appeared that there is a very high moral correlation between the strength of the characteristic speed of the legs and arms and the completion of the competition (60) m for young runners, as the strength characteristic of speed for the legs and arms is of great importance in the competition. As the main characteristic of excellent riders, they possess great strength and speed and can link them to fast and robust moving events in an integrated way to ensure optimal results (Allawi, Radwan, 1982, 78). The force characteristic of speed increases the speed of a short-distance runner through the length and frequency of steps, as speedrunners who have strength and speed in the leg muscles are the fastest than others. They can run fast and maintain ideal stepping while jogging. (The force characteristic of speed is the interaction between force and velocity, and it helps in increasing the average speed of the runner, and the superior runner is the one who is distinguished by the strength distinguished by speed) (Thompson, 2009, 102).

Concerning the distinguishing strength of the bracelet, the film speed shall undoubtedly be the same as the quick and robust movement of the two legs during the contest and the speed increase with which the arms travel is seen in the movement of the two legs, by the concept of the kinetic transition (Stamper, 1983, 55).

Table (2) shows a significant correlation between the two men's flexibility and the competition's completion (60) AD. This moral connection is due to the importance of versatility in improving maximum speed for the race drivers by making an efficient contribution to increasing the joint motor range and the increase of the muscles involved and then increasing the step length at the

maximum speed. The limited flexibility of a runner may prevent him from obtaining the effective stride length. With flexibility exercises concerned with lengthening the participating muscles, an increase in the motor range occurs. The lengthening (increase) and shortening of the muscle length affect its ability to contract systolic force.

As for the moral link between agility and the completion of the (60) m competition, it is due to agility in the timing process and the organisation of the successive and weighted movements of the runners. And since the 60-meter sprint competition is one of the competitions that deal with time in achievement, the more the runner is consistent in movements and is consistent in performance, the better his achievement will be, shortening some parts of the second.

Conclusions and recommendations

4.1. Conclusions

1- The achievement of five physical and moving skills most critical to the completion of the 60 m competition (explosive capacity of both men, distinguishing strength of speed of the two legs and distinctive strength of arm speed, two-leg endurance, agility) out of (9) physical and motor capacity for the young race participants.

2- The results showed a significant correlation between the physical and mobility abilities of the 60 m youth runners, especially (the explosive ability of the two men, and the distinctive strength of the speed of the two legs, and the distinctive strength of the speed of the arms, the flexibility of the two men, agility) with their achievement in the competition.

4.2 Recommendations

1- It is necessary to know the most important physical and motor abilities to accomplish the young runners of the 60-meter Sprint competition.

2- It is necessary to focus in training on developing the essential elements of runners, especially the most important ones in the performance of speed competitions, including (the explosive ability of the two men and the distinctive strength of speed of the legs and arms, flexibility of the two legs, agility).

3- Conducting similar studies for other age groups (junior and advanced) to determine the most important physical and motor abilities of runners.

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