

# **The dynamics of developing the speed of performance of the movements of the feet using the Stretch shortening cycle and its impact on the level of the offensive performance of wrestlers**

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## **1/1 Introduction and research problem:**

Performance Effectiveness is one of the necessary requirements for the wrestler's success in implementing these skills, which is to master the implementation of its technical stages and find the link between them within the scope of the overall performance, in addition to the motor efficiency that enables the wrestler to continue to implement it for the longest period.

The player's skill in speed and mastery of moves is one of the most important elements to win matches, as this leads to confusing and distracting the opponent and not giving him the opportunity to focus, which at the same time allows the player to quickly and easily choose the appropriate distances and situations for the various offensive and defensive movements.

The player must not rely on his movements only to adjust the distance between him and the opponent, but also on the movements of his opponent, which the player must exploit in his favor by attracting or dragging the opponent to move until the distance between them becomes suitable for the player, The more the competitor excels in the movements of the feet during the fight, the more difficult it is for the player to adjust the different distances during the compacting. (8:90)

Through the work of the two researchers in the field of wrestling training and their follow-up to many local and international tournaments, they noticed the weak results of free wrestling players, which they see as significantly related to shortcomings in some offensive performances during matches for Egyptian players. This turned out to be the failure of many of these offensive performances to penetrate the competitor's field and not reach their various goals. The researchers attributed this shortcoming in the offensive performance to the lack of good exploitation of the movements of the feet in the appropriate offensive timings to perform the different skills, this is confirmed by the study of Bilal, Tut, Mark Pawlett, Raymond Pawlett, which had a clear effect in increasing the time of the motor response speed over the appropriate time to implement these performances. As well as the inaccuracy of directing skills to their different goals from the body of the competitor, as the researcher noted that the movements of the feet of the Egyptian players mostly depend on randomness in many cases, compared to the players with advanced positions, The researchers attributed this difference in the degree of exploitation of the movements of the feet associated with the offensive timings to several reasons, including the lack of interest of the coaches in training on the movements of the feet and linking them to the different offensive timings related to the implementation of offensive performances during the match. This is confirmed by Ahmed Al-Sadiq (2015 AD) (2),

and there is a relationship between the player's agility and speed of response and his movements on the wrestling rug, whether for attack or defense, where the speed and efficiency of his movements enable him to achieve the various strategic and tactical duties imposed by the game. hence, the problem of this research crystallized in the exploration of a training method that contributes to the development and growth of the physical level and breaks the state of boredom and monotony from repeating the training programs that are often different in intensity and sizes, and to use the same exercises with the same motor performance, this is what prompted the researchers to use a new method in sports training in general and in wrestling in particular, which is training (**the Stretch shortening cycle**). The researcher hopes, through its use of wrestlers, to take an active part in the programs of physical preparation of wrestlers, which helps the coach or the person responsible for the training process.

### **1-3 Research Objective**

#### **The research aims to:**

"Recognizing the dynamics of developing the speed of performance of the movements of the feet using the Stretch shortening cycle and its impact on the level of offensive performance of wrestlers".

#### **1-4 Research proposals:**

1-4-1 There are statistically significant differences between the pre- and post-measurement of the experimental group in the physical variables and the level of offensive performance under discussion in favor of the post-measurement.

1-4-2 There are statistically significant differences between the pre- and post-measurement of the control group in the physical variables and the level of offensive skill performance under study in favor of the post-measurement.

1-4-3 There are statistically significant differences between the two post-measurements of the two groups (experimental - control) in the physical variables and the level of offensive skill performance in favor of the post-measurement of the experimental group.

#### **1-7 Research procedures:**

##### **1-7-1 Research methodology:**

The two researchers used the experimental method by designing (pre-test-post-measurement) for two groups, one experimental and the other controlling, for its relevance to the nature of this research.

##### **1-7-2 research sample:**

The main research sample was chosen in an intentional way from the wrestling players of the Muslim Youth Association in Benha, who numbered (16) juniors, and they were distributed into two groups (experimental - control), each group numbered (8) juniors, and (5) juniors were chosen as an exploratory sample of wrestling players. At El-Mansheya Youth

Center in Benha, to conduct the survey, and thus the total number of the total sample for research becomes (21) juniors.

**1-7-2-1 The equivalence of the research sample:**

**Table (1)  
The significance of the differences between the experimental group and the control group in the variables under study**

Variables			experimental group		control group		The difference between the two averages	T value		
			Average	standard deviation	Average	standard deviation				
			n1=n2=8							
growth variables	Weight		74.125	22.999	70	11.326	4.125	0.683		
	Length		171.875	10.329	169.25	8.241	2.625	0.746		
	Age		16.25	0.707	16.125	0.834	0.125	-0.369		
	Training age		6.25	1.488	6.125	1.457	0.125	0.346		
physical variables	Maximum strength	Testing the strength characteristic of speed with weights for the muscles of the two legs working in the front stab (3 times to the right)	3.35	0.289	3.55	0.269	-0.2	-1.241		
	strength characteristic of speed	Testing the strength characteristic of speed with weights for the muscles of the two legs working in the front stab (3 times to the left)	3.581	0.325	3.6	0.1963	-0.019	-0.139		
		Speed test for falling on the legs (3 times)	9	0.534	8.937	0.678	0.063	0.649		
	reaction speed	A device for measuring the speed of reaction for freestyle wrestling players	0.279	0.024	0.272	0.026	0.007	0.643		
	center stability	core test (maximum time)	1.437	0.091	1.418	0.070	0.019	0.155		
	agility	The prone test from standing and crawling around a circle. Circle creep	23.062	0.060	23.296	1.533	-0.234	-0.137		
		The outside leg drop agility test (10 seconds)	3.75	0.707	3.875	0.834	0.125	0		
skill variables	Fireman carry skill	1.641	0.042	1.635	0.041	-0.006	0.603			
	Falling on the legs	1.753	0.035	1.766	0.042	-0.013	-0.325			

	with side flap						
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Tabular T value at significance level (0.05) = 2.145

The table shows that there are no statistically significant differences at the level of 0.05 between the experimental and control groups in the developmental, physical and skill variables, which indicates the parity of the two groups.

**1-7-3-1 Data collection tools and methods:**

- A ristometer for measuring height (cm) and weight (kg).
- Video camera.
- Measuring tape (to measure distance).
- Stopwatch for measuring time.
- Signs.
- Back muscle strength dynamometer.
- Whistle.
- Wrestling mat.

**1-7- 3- 2 Tests used in the research:**

- Speed test for falling on the legs.
- The agility test for falling on the legs with lateral tossing.
- A device for measuring the reaction speed of freestyle wrestling players.

**Skill tests:**

- **Skill performance evaluation form for the skills under research, which are:**
- Fireman carry skill.
- Falling on the legs with side flap skill.

The actual degree of the player's skill performance was measured by means of the performance level equation, using the evaluation of the arbitrators and the time of performance of the skill, as follows:

**The actual degree of the player's skill performance was measured by means of the performance level equation, using the evaluation of the arbitrators and the time of performance of the skill, as follows:**

$$\text{Actual score of player's performances} = \frac{\text{The evaluation of the arbitrator}}{\text{The time of the performance for the skill}} \times \text{fixed value}$$

#### **1-7-4 Exploratory study:**

During the period 2/4/2021 and up to 16/4/2021, researchers conducted a survey of the survey sample of 5 outside the core sample. The purpose of this study was to verify the validity of the tools and equipment used and to legalize training loads for the training programme.

#### **1-7-5 Basic experience:**

##### **Applying the proposed training programme:**

The researchers implemented the training programme using applying a course of the Stretch shortening cycle from Thursday, 25/4/2021, to Tuesday, 27/6/2021, 10 weeks and 4 modules per week, which included the following steps:

##### **1-7-5-1 Pre- measurements:**

Pre- measurements (physical and skilled) of the research sample were applied in the period from.....

##### **1-7-5-2 Programme content:**

The content of the programme includes warm-up, main part training (weight training, the Stretch shortening cycle training course), skill training and relaxation training, as follows:

##### **1-7-5-2-3-1 Warm-up and physical training:**

It involves warm-up, physical preparation and stretching training aimed at preparing the wrestler physically as well as various parts and organs of the individual in an orderly and progressive manner to carry the burden of loading during the main part; Both Abu Alla Ahmed Abdul Fattah (1997) and Ismauddin Abdul Khalik (2003) agree that the period of warm-up depends on the main duty of the dose as well as the temperature of the atmosphere, the individual's training situation, and that at the beginning of the training dose or usually before the competition, the player requires physical activity in order to help adapt the body's organs to perform the competition load. (1 :282) (12 : 103)

##### **1-7-5-2-3-2 Main part exercises:**

It contains exercises of the cycle of stretch shortening training and skill exercises, and Muhammad Allawi (1994 AD) indicates that this part contains duties that contribute to the development of the training situation in its various aspects and it takes from 2/3 to 3/4 of the total time of the training unit. (17:328, 329)

##### **3- Competitive training:**

It includes the performance of some competitive exercises related to the skill aspect in question, and the focus is through this part on the skill aspect, as is the focus and care for the wrestlers to perform duty specific tours.

##### **1-7-5-2-3-2-3 physical calming exercises:**

The physical calming exercises aim to return the wrestler to his normal state through a set of relaxation and calming exercises. This part takes between 1/9 to 1/10 of the total time allocated to the training unit.

- **Steps to develop the training program:**

The two researchers prepared a questionnaire for the opinion of the experts to determine the foundations and components of the proposed training program for wrestlers using the Stretch shortening cycle exercises, and Table (5) shows the percentage of experts' opinions in determining the foundations and components of the training program.

**Table (2)**  
**Percentage of expert opinions in determining the foundations**  
**The components of the training program**

Ser.	The foundations and components of the proposed training program	responses		percentage	
		Agree	Not agree		
1	Programme duration	(6 weeks)	-	-	-%
		(7 weeks)	-	-	-%
		(8 weeks)	6	1	14.28%
		(10 weeks)	1	6	85.71%
2	Number of weekly training doses	2 training doses	-	-	-%
		Training doses	-	-	-%
		4 training doses	7	-	100%
3	Beginning of the training dose	50 minutes	-	-	0%
		60 minutes	6	1	85.71%
		70 minutes	1	6	14.28%
		80 minutes	-	-	-%
		90 minutes	-	-	-%
4	Load degree	1:1	-	-	-%
		1:2	6	1	83.71%
		1:3	1	6	14.28%
		1:4	-	-	-%

It is clear from Table (3) the percentage of experts' opinions in determining the foundations and components of the training program. The elements whose relative importance reached more than 75% were accepted. They were limited to:

- 1- Duration of the program (two months - 10 weeks).
- 2- Number of weekly training doses (4 doses).
- 3- The number of training doses during the program (40) training doses.
- 4- Beginning of the training dose time (60 s).
- 5- Training methods used (repetitive - interval of both types).
- 6- Training loads (medium - high - maximum)

**Table (3)**  
**Program planning using the Stretch shortening cycle**

Training phase	First phase	Second phase	Third phase
training period	General setup "Establishment"	Special setup "intensity"	competition "keep"
Extension of period	2 weeks	6 (two weeks)	2 (two weeks)
training intensity	3	4	4
Groups	4-6	3-4	3
repetitions	15-20	10-12	6-8
intensity	50%: 70% M R 1	75%: 90%	60%:89%

**1-7-5-3 Post- Measurements:**

The post measurements of the experimental group were carried out for the members of the research sample in the variables used under research and under the same conditions as the pre-measurements during the time period 28-30/4/2021.

**1-8 Presentation and discussion of the findings:**

**1-8-1 Presentation of findings**

**Table (4)**

**The differences between the pre and post measurements of the experimental group and the percentages of improvement in the variables under investigation N=8**

Variables			Pre-measurement		Post-measurement		Difference between the two averages	T value	Ratio of improvement
			Average	standard deviation	Average	standard deviation			
physical variables	Maximum Strength	Maximum kinetic force test Back-stretching muscles (deadlift)	206.62	12.117	247.5	5.345	-40.88	8.764	21.60
	strength characteristic of speed	Testing the strength characteristic of speed with weights for the muscles of the two legs working in the front	3.35	0.289	2.662	0.175	0.688	-4.94	25.821

	stab (3 times to the right)								
	Testing the strength characteristic of speed with weights for the muscles of the two legs working in the front stab (3 times to the left)	3.581	0.325	3.012	0.083	0.569	-5.189	31.422	
	Speed test for falling on the legs	9	0.534	6.285	0.267	2.715	-12.22	-30.15	
Response speed	A device for measuring the speed of reaction for freestyle wrestling players	0.279	0.024	0.199	0.045	0.08	-4.43	-28.67	
center stability	core test	1.437	0.091	2.068	0.221	-0.631	6.714	43.910	
agility	The prone test from standing and crawling around a circle. <b>Circle creep</b>	23.06 2	0.060	18.98 7	0.203	4.075	- 10.07	21.461	
	The outside leg drop agility test (10 seconds)	3.75	0.707	5.125	0.640	-1.375	3.360	36.66	
Skill variables	Fireman carry skill	1.641	0.042	2.162	0.051	-0.521	22.30 2	-24.11	
	Falling on the legs with side flap	1.753	0.035	2.206	0.049	-0.453	16.99 3	25.841	

Table T-value at significance level (0.05) = 1.89

**Table (5)**



**The differences between the pre and post measurements of the control group and the percentages of improvement in the variables under investigation**

Variables		Pre- measurement		Post- measurement		Difference between the two averages	T value	Ratio of improvement	
		Average	standard deviation	Average	standard deviation				
physical variables	Maximum Strength	Maximum kinetic force test Back-stretching muscles (deadlift)	208.125	8.425	224.375	4.955	-16.25	5.116	7.807
	strength characteristic of speed	Testing the strength characteristic of speed with weights for the muscles of the two legs working in the front stab (3 times to the right)	3.55	0.269	3.212	0.317	-0.338	2.365	-9.52
		Testing the strength characteristic of speed with weights for the muscles of the two legs working in the front stab (3 times to the left)	3.6	0.196	3.262	0.243	0.338	2.643	-9.38
		Speed test for falling on the legs	8.936	0.678	8.075	0.103	0.862	3.037	-9.64
	Response speed	A device for measuring the speed of reaction for freestyle wrestling players	0.272	0.026	0.245	0.061	0.027	0.622	-9.92
center stability	core test	1.418	0.070	1.612	0.334	-0.194	-0.639	13.681	
agility	The prone test from standing and crawling around a circle. Circle	23.296	1.533	21.872	1.384	1.424	1.586	-6.11	

	<b>creep</b>							
		The outside leg drop agility test (10 seconds)	3.875	0.834	4.25	0.462	-0.375	- 1.107
Skill variables	Fireman carry skill	1.635	0.041	1.807	0.126	-0.172	- 3.940	10.51 9
	Falling on the legs with side flap	1.766	0.042	1.945	0.204	-0.179	- 2.445	10.13 5

Table T-value at significance level (0.05) = 1.89

**Table (6)**  
**The differences between the two-dimensional measurements of the two groups (experimental - control) and the percentages of improvement in the variables under investigation. N1=N2=8**

Variables		Experimental group		Control group		Difference between the two averages	T value	Ratio of improvement	
		Average	standard deviation	Average	standard deviation				
physical variables	Maximum Strength	Maximum kinetic force test Back-stretching muscles (deadlift)	247.5	5.345	224.375	4.955	23.13	12.222	-9.34
	strength characteristic of speed	Testing the strength characteristic of speed with weights for the muscles of the two legs working in the front stab (3 times to the right)	2.662	0.176	3.212	0.317	-0.55	-3.524	20.66
		Testing the strength characteristic of speed with weights for the muscles of the two legs working in the front stab (3 times to the left)	3.012	0.083	3.262	0.243	-0.25	-4.228	8.300
		Speed test for falling on	6.285	0.267	8.075	0.103	-1.79	-17.11	28.480

	the legs								
Response speed	A device for measuring the speed of reaction for freestyle wrestling players	0.199	0.045	0.245	0.061	-0.046	-2.199	23.115	
center stability	core test	2.068	0.221	1.612	0.334	0.456	2.728	-22.05	
agility	The prone test from standing and crawling around a circle. <b>Circle creep</b>	18.987	0.203	21.872	1.384	-2.885	-5.288	15.194	
	The outside leg drop agility test (10 seconds)	5.125	0.640	4.25	0.462	0.875	2.5	-17.07	
Skill variables	Fireman carry skill	2.162	0.051	1.807	0.126	0.355	6.447	-16.42	
	Falling on the legs with side flap	2.206	0.049	1.945	0.204	0.261	2.852	-11.83	

Table T-value at significance level (0.05) = 2.145

### 1-8-2 Discuss the findings

#### Discussion of the first hypothesis:

It is clear from Table (10) that the value of (T) calculated in the physical variables came higher than the value of (T) tabular, and this was evident through the improvement rates, , where the calculated value of (t) and the percentage of improvement in the maximum force, which are respectively (8.764), (21.60), as it is clear that the calculated value of (t) and the percentage of improvement in the force characterized by speed, which are in order (-4.95, - 5.189, 12.22), the percentage of improvement, respectively, was (25.821, 31.422, - 30.15), as it is clear that the calculated (T) value and the rate of improvement in reaction speed, respectively (-4.043), (- 28.67), It is also clear that the calculated value of (t) and the percentage of improvement in the stability of the position amounted to (-10.07, 43.910), and the value of (t) calculated in agility was (-10.07, 21.461), and the percentage of improvement amounted to (21.461, 36.66), respectively, also, the calculated value of (t) in the skill variables was higher than the value of (t) tabular, and it was clear through the improvement ratios that the calculated value of (t) and the percentage of improvement in the skill of the firefighter's lift were, respectively (22.302, - 24.11), and the value of (T) computed in the skill of falling on the legs with lateral inflection

(18.993), which is much higher than the tabular value of (T), and this is evident through the improvement rate, which amounted to (25,841).

**Hassan Abdel Salam Mahfouz (2004 AD) (7)** indicates that the maximum fixed strength of the muscles of the back is the most important physical variable that contributes to the level of technical performance of the skill of falling on the legs. the importance of the fixed maximum strength of the muscles of the back is attributed to the indicators of the skill performance level of the skills of falling on the two legs under discussion in that it supports the ability of the wrestlers to repeat the skills successively during the test time, which increases the total number of executed skills, in addition to the role of this physical characteristic in efficiently completing the technical stages of these skills, which results in an increase in the total scores of technical performance evaluation, as well as an increase in the quality index of the technical performance of those skills.

The results of the study also agree with **Omar Hassan Tammam (2000 AD) (13)** in that the lengthening and shortening cycle exercises work to increase and develop strength characterized by speed, as well as James and Robert (**James & Roert (1985 AD) (21)**) Which is considered to be one of the most important advantages of the (stretching-shortening) cycle training that it increases motor performance, meaning that the strength gained from this type of training leads to better motor performance in the exercised sports activity by increasing the ability of the muscles to contract at a faster and more explosive rate during the range of motion in the joint. At all speeds of movement.

The results of the study **Kalach R, Seryozha G, Branko K ((2016 (22))** indicate the effective role of response speed and its positive impact on the development of skill performance.

The muscles of the trunk are the main physical and muscular center for the distribution of movement in the body. If the player moves the arms or legs, he feels the movement of the muscles of the trunk and makes him feel his physical and muscular position and leads to fluidity of movement control, so focus is the basis of good motor performance.

According to **Ahmed Sobhi Al-Sadiq (2015 AD) (2)** that the agility exercises related to the movements of the feet led to the player gaining agility and speed of movement in different directions on the rug, as most of the playing positions inside the match as well as the performance of kicks require changing the direction of the body or part of it depending on the nature of the upcoming attack of the opponent or the presence of surprise loopholes.

The researchers believe that agility plays an important role in the ability to perform the skills of free wrestling, as it helps the player to perform a motor duty that takes place in diversity and difference, and moves smoothly and in proper timing, it also works on serenity and the ability to anticipate, all of which are considered key keys to achieving excellence in any sports activity.

In this regard, **Fathi Al-Saqqaf (2010) (14)** mentions in his study that agility requires the integrity of the central nervous system, as well as the speed of communication and response, the better the coordination of the reverse conditional action of movement (the work of the nerves), the greater the control over performance and the implementation of sports skills, the easier it is for the individual to acquire new movements, thus improving his agility component, and thus the greater the athlete's ability to sense the high-level precise movement, the greater the possibilities of controlling the speed of motor change, thus achieving accurate movement, and achieving the desired results.

#### **Discussion of the second hypothesis:**

It is clear from Table (11) that the calculated (T) value in the physical variables came higher than the tabular (T) value, and this was evident through the improvement ratios, as the calculated (T) value and the improvement percentage for the maximum strength, which are respectively (5.116), (7.807) , as it is clear that the calculated value of (T) and the percentage of improvement in the force characterized by speed are, respectively (2.365, 2.643, 3.037), and the percentage of improvement, respectively, reached (-9.52, -9.38, -9.64), and it is clear that the value of (T) Calculated and percentage improvement in reaction speed, respectively (0.622), (9.677), as it is clear that the calculated (t) value and the improvement rate in the stability of the position amounted to (-1.639, 13,681), and the calculated (t) value in agility was (1.586, -1.107), and the improvement rate amounted to ( -6.11, 36.66 ) also, the calculated value of (T) in the skill variables was higher than the value of (T) tabular, and it was clear through the improvement ratios that the calculated value of (T) and the percentage of improvement in the skill of the firefighter's lift are, respectively (3.940, 10.519) Also, the value of (t) calculated in the skill of falling on the legs with lateral inflection was (-2.445), which is much higher than the value of the tabular (T) and this is evident through the improvement rate, which amounted to (10.135).

The traditional program, even if it did not contain standardized exercises aimed at improving the research variables (physical - skill), showed a positive effect on the variables under consideration, due to the regularity of training by the control group, and the traditional program containing general physical and skill exercises, especially in wrestling.

The researchers attribute this simple development in the control group compared to the experimental group to the lack of the exercises used in the exercises used in the exercises of the control group on the correct scientific foundations and the lack of a correct and accurate link between the number of repetitions and the exercise and the intensity used and the comfort between repetitions and between exercises, as well as to the lack of continuous change in The exercises and their different situations and dependence on improvised training, and therefore these results confirm the validity of the second hypothesis of the research.

### **Discussion of the third hypothesis:**

It is clear from Table (12) that the calculated (T) value in the physical variables came higher than the tabular (T) value, and this was evident through the improvement percentages, where the calculated (T) value and the improvement percentage for the maximum strength, which are in order (12.222), (- 9.34), as it becomes clear that the calculated value of (T) and the percentage of improvement in the force characterized by speed are, in order (-3.524, -4.228, -17.11), the percentage of improvement, respectively, reached (20.66, 8.300, 28.480), and it is clear that the calculated (T) value and the rate of improvement in reaction speed, respectively (-2.199), (23.115), as it is clear that the calculated value of (t) and the percentage of improvement in the stability of the position amounted, respectively (2.728, -22.05), and the value of (t) calculated in agility was (-5.288, 2.5) and the percentage of improvement amounted to (15.194, -17.07, respectively), Also, the calculated value of (T) in the skill variables was higher than the value of (T) tabular, and it was clear through the improvement ratios that the calculated value of (T) and the percentage of improvement in the skill of raising the firefighter were, respectively (6.447, -16.42), and they amounted to (6.447, -16.42). The value of (t) calculated in the skill of falling on the legs with sideways overthrow (2.852), which is much higher than the value of the tabular (t) value, and this is evident through the improvement rate, which amounted to (-11.83).

This is consistent with what was indicated by **James & Robert (1985)**, **James & Roer (21)** and **Abdel Aziz Al-Nimr and Nariman Al-Khatib (1996) (10)** that the strength gained from the stretching-shortening cycle exercises leads to better performance in specialized sports activity through the ability of Muscles contract at a faster rate and through range of motion.

**Martel (1993) (23)** indicates that the availability of a high level of maximum strength for the back muscles of the wrestler enables him to overcome high resistances during the implementation of difficult skills, improves the form of technical performance and increases its effectiveness, and reduces the chances of failure when execution during matches.

**Muhammad Al-Rubi (1991 AD) (15)** adds that the force distinguished by speed is the ability to produce a large force at a high speed, and it is among the physical abilities necessary to develop the fitness of the wrestler, as the sport of wrestling is characterized by a sudden rapid change in conflict situations from various situations depending on the offensive and defensive movements of the competitor, which requires High capabilities of force distinguished by speed. A wrestler who possesses a high level of force distinguished by speed can carry out offensive and defensive duties quickly and efficiently. This is consistent with what was mentioned by **Mossaad Ali (2004 AD) (18)** that performance-related exercises are of great importance in improving the skill performance of wrestlers, and training must be consistent with the motor path of the skill to be trained on, and participate in the muscles working in the movement.

The improvement in the physical abilities under investigation also led to an improvement in the level of skill performance according to the principle of transmission of the effect of training, and this is consistent with what **Muhammad Al-Rubi (1991) (15)** indicated that the development of special physical qualities had an impact on increasing the level of skill performance for wrestlers, as **Essam Abdel-Khaleq (2003) (12)** emphasizes that mastering skill performance depends on the extent to which the requirements of this performance develop in terms of special physical abilities. These results are also in agreement with the study of **Al-Sayyid Al-Mohammadi (2007) (3)** that the improvement in the physical variables related to free wrestling is reflected in the improvement of the skill level.

## **1-9 Conclusions and Recommendations:**

### **1-9-1 Conclusions:**

- The special stretching- shortening cycle exercises have a positive effect on the development of the speed of performance of the movements of the feet in the experimental research sample.
- The effect of developing the speed of performance of the movements of the feet on the level of the physical abilities of the wrestlers in the experimental research sample.
- The effect of developing the speed of performance of the movements of the feet on the level of the offensive performance of the skills of the fireman carry skill and falling on the legs with the lateral overthrow of the wrestlers in the experimental research sample.
- The traditional program, even if it did not contain standardized exercises aimed at improving the research variables (physical - skill), showed a positive effect on the variables under consideration, due to the regularity of training by the control group, and the traditional program containing general physical and skill exercises, especially in wrestling.
- The differences in the percentages of improvement between the two groups (experimental - control) showed in the physical and skill research variables, and the experimental group that used the experimental program that contained developing the speed of performing the movements of the feet using the special lengthening and shortening cycle exercises was superior to the control group that used the (traditional) program.

### **1-9-2 Recommendations:**

- The application of developing the speed of performance of the movements of the feet using the special stretching- shortening cycle within the training programs for free

wrestling players due to its effectiveness in raising the level of physical and skill performance.

- Conducting more similar studies of the nature of research on the skill level of composite freestyle wrestling.
- The necessity of performing the exercises in a manner that simulates the nature of performance and takes the same motor path of sports skills. ---

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