

**A comparative study between the differential learning method and the adopted method using assistive exercises in teaching the stages of performing the snatch lift for beginners**

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**ABSTRACT:**

The aim of the research is to identify a comparative study between the differential learning method and the adopted method using assistive exercises in teaching the stages of performing the junior hijacking, as well as to identify the numbers of special exercises to teach the hijacking lift according to the differential learning method. The pre and post tests in order to suit the nature of the research problem, and the research sample consisted of the players of the specialized school in Diyala governorate to lift weights based in the Khalis Sports Club by (22) players selected from the research community by 100%, and the sample was divided into two groups, the control group of (11) A player and the experimental group (11) players, and two introductory units were conducted for the test and an exploratory experiment was conducted, and the pre-test was conducted on Thursday 10/8/2020 for the research sample through the players 'performance of the snatch lift and the test was conducted to evaluate the performance of (10) degrees of During three certified referees in the field of the game, and the main experiment was conducted on Saturday 10/10/2020 at three in the afternoon, after which the researchers The application of exercises within educational units using the exercises and the proposed tools to teach the stages of performing the kidnapping lift, and the number of educational units was (24) educational units at three educational units per week, and after that the post-test was conducted, and after identifying the results, the researchers treated them by using the statistical bag spss After analyzing the results, the researchers reached conclusions, the most important of which are the exercises designed by the researchers and their tools to

perfect the kinematic path of the stages of performing the snatch lift.

## **1- INTRODUCTION:**

Weightlifting sport has a historical position in terms of its practice as part of the daily activity in ancient times, as well as its practice as a sport that entered among the ancient and modern Olympic Games. Its social and economic advancement, the time for accomplishments is over due to chance, relying solely on the talent of the athlete and his natural abilities, and that access to championships in all sporting events is related. With a continuous and integrated series of procedures, as traditional learning approaches usually depend on a linear understanding of the causal relationship, where the same cause leads to the same effect and the use of sequential (linear) steps for the learning stages through repetitions without stimulating the learning instinct and thinking of the learner about how to benefit from the different educational situations in Formation of the required skill, so the researchers decided to use a new educational method, which is differential learning in teaching the performance of the hijacking lift for beginners: It is “a method that relies on unorganized and non-sequential transfers in conducting the skill from one part of a skill to another part of a skill with the aim of creating weak and nervous connections that can be used in learning The skill and preservation of it, noting that the traditional repetitions and correction method are not adopted, but rather the transition between learning situations in a non-linear way (Lee, t. Simon, D Skill: 2004: 29). Followed in learning the kidnapping lift, where the research aimed to prepare special exercises to teach the kidnapping lift according to the differential learning method, as well as to identify the effect of the differential learning method in stages. The technical performance of the snatch lift for novice players, and from the assumption of the research there are statistically significant differences between the results of the pre and post tests of the control and experimental research groups in the performance of the snatch lift by lifting weights for beginners and for the benefit of post tests, as for the research areas represent the human field with the beginners players in the Khalis Sports Club As for the temporal domain, the period was from 10/10/2020 to 2/12/2020, while the spatial domain was represented in the hall of the Khalis sports club with weightlifting.

## **2- Research Procedures:**

### **2-1 Research Methodology:**

The researchers used the experimental approach of equal experimental groups and a randomized control choice with two pre and post tests due to its relevance to the nature of the research problem.

### **2-2 Research Sample:**

The research community is represented by the players of the Specialized School in Diyala Province for weight lifting, which is based in the Khalis Sports Club, with ages 10-13 years old for the 2020-2021 sports season, and their number is (22) players who were deliberately chosen. . As for the research sample, it was selected from the research community at a rate of (100%). The sample was divided into two groups, the control group of (11) players and the experimental group, their number (11) players, by the method of drawing lots.

### **2-3 tools and equipment used in the research:**

#### **2-3-1 Tools used:**

Two (2) pairs of multi-heights, pens with papers, (6) kg dumbbells, (4) medical balls of 2-3 kg, two camera stands, two colored tape, two cotton ropes. Circles of different sizes.

### **2-3-2 used devices:**

Legal weightlifting device, Chinese medical scale, scientific imaging camera (240 frames per second), Chinese-made (hp) type computer.

### **4- Field research procedures:**

#### **2-4-1 Preparing and designing exercises in the differential learning style:**

**First:** Spread from the top by using the brush and the wall method.

The goal of the exercise: to develop the movement of the arms during deployment.

Tools used: (multi-height bracket, ropes, brush)

Method of performance: from a standing position (opening) in front of the wall, holding the brush and the anchors pointing to the outside at an appropriate distance with a rope parallel to the wall at the height of the chin, where the arms are above the rope from the elbow joint and the forearm is moved to only on and down while maintaining the stability of the elbow and upper arm joint (dye) the wall).

**Second:** Passing the barrier from below (in the squatting manner).

The goal of the exercise: to match the speed of landing and the movement of the feet.

Tools used: (wooden backings, paper tape)

Method of performance: placing a barrier about 10 cm high above the player's head while in a squatting position, and then the player stands in front of the barrier about a foot away, then descends and crosses the barrier in a squatting position. While maintaining a straight body position during landing.

**Third:** pulling a medical ball from the belt level to the chest level.

The goal of the exercise: to develop coordination between the movement of the arms and the extension of the body during withdrawal.

The tools used: a medicine ball, weighing 2 kg.

Method of performance: from a standing position (open) holding a medicinal ball and arms in a position of full extension down in front of the body, as the player pulls the ball to the level of the chest and elbows to the top with the heels raised and standing on the combs and the torso tilted back a little, then return to the starting position

**fourthly:** dropping a medical ball from the top to the back and landing in a squatting position.

The goal of the exercise: to develop coordination between arms and landing in a squatting position.

Tools used: (medicine balls weighing 2 kg, multi-height bras, ropes)

Method of performance: from a standing position (open) and arms extended up behind a rope placed behind the back at a distance of a foot from the player, as the player tilts the torso back and stands on the toes of the feet and then drops the ball and quickly descends in a squatting position and maintains the arms in a full extension up During performance.

### **2-5 Exploratory Experience:**

The exploratory experiment was conducted on players outside the research sample on Wednesday 7/10/2020 in Khalis Sports Club, in order to find out the negatives and positives that will face the researcher when conducting the main experiment.

### **2-6 pretest:**

The pre-test was conducted on Thursday 10/8/2020 for the research sample through the players' performance of the snatch lift and the test was conducted to evaluate the performance of (10) scores. Through three certified referees in the field of the game

**2-7 The main experience:**

After conducting the pre-tests, the exercises were applied within educational units using the exercises and the proposed tools to teach the performance of the kidnapping lift on Saturday 10/10/2020 at three in the afternoon, and the number of educational units was (24) educational units, at a rate of three educational units per week (Saturday – Monday - Wednesday) the researcher prepared two introductory units before entering into the implementation of the exercises in which the explanation was made on how to use the exercises with the tools, and then the exercises were conducted in the main part of the educational unit only, where the researcher's role was to oversee the work only, as the time of the main section was (45) minutes, the introductory aspect included (5) minutes in which he explained the exercises carried out in each educational unit, as the researcher used four exercises in each educational unit, and the time for implementing and implementing the exercises was (40) minutes in which the exercises were carried out with the tools. Teaching skill with tools for the purpose of mastering the kinematic path of the snatch lift.

**2-8 post test:**

After completing the exercises, the post-test for the control and experimental groups took place on Saturday 5/12/2020 and at the same time and under the same circumstances at exactly three in the afternoon.

**2-9 statistical methods:**

The researchers used the statistical bag (spss) to extract the results.

**3- Presentation, analysis and discussion of results:**

**3-1 Presentation and analysis of the results of the experimental and control groups in the post tests of the performance stages of the snatch**

Mistake Percentage	T	The standard Deviation	The Arithmetic mean	N	Groups	Stages
0.000	6.261	0.408	8.220	9	Experimental	Start mode
		0.265	7.204	9	Control	
0.000	4.598	0.470	8.109	9	Experimental	The first draw
		0.271	7.278	9	Control	
0.002	3.628	0.444	7.812	9	Experimental	Movement of the knees
		0.399	7.090	9	Control	
0.000	8.414	0.441	7.664	9	Experimental	The second draw
		0.261	6.227	9	Control	
0.000	6.215	0.308	8.083	9	Experimental	Flying and landing
		0.469	6.921	9	Control	
0.000	6.643	0.309	8.294	9	Experimental	Advancement and stability
		0.357	7.249	9	Control	
0.000	5.392	0.371	8.000	9	Experimental	Macro Performance
		0.240	6.206	9	Control	

From the above table that shows the values of the arithmetic means, the standard deviations, the calculated value of (t) and the error rate of the experimental and control groups in the post tests of the technical performance stages of the hijacking lift, as the arithmetic mean of the experimental group reached 8,220 with a standard deviation 0.408, the arithmetic mean

of the control group was 7.204 and a standard deviation of 0.265 and reached The value of ( $v$ ) is 6.261, with an error ratio of 0.000 for the two groups, which indicates the existence of statistically significant differences for the experimental and control groups in the post tests of the starting position stage and the benefit of the experimental group.

In the first draw stage, the arithmetic mean of the experimental group reached 8.109, with a standard deviation of 0.470, and the arithmetic mean of the control group was 7.278 and a standard deviation of 0.271, and the calculated value of ( $t$ ) was 4.598 with an error rate of 0.000 for the two groups, indicating the existence of statistically significant differences for the experimental and control groups in the post tests of the pull phase The first and the benefit experimental group.

In the stage of movement of the knees, the mean of the experimental group reached 7.812 with a standard deviation of 0.444, the arithmetic mean of the control group was 7.090 and a standard deviation of 0.399, and the value of ( $t$ ) calculated was 3.628 for the two groups with an error rate of 0.002, which indicates the existence of statistically significant differences for the two groups and the control in the experimental post tests. For the phase of movement of the knees and the fit experimental group.

In the second draw stage, the arithmetic mean of the experimental group reached 7.664 with a standard deviation of 0.441, the arithmetic mean of the control group was 6.227 and a standard deviation of 0.261, and the calculated value of ( $t$ ) was 8.414 with an error rate of 0.000 for the two groups, which indicates the existence of statistically significant differences for the experimental and control groups in the post-tests. For the second draw phase, the benefit experimental group.

In the flight and landing stage, the arithmetic mean of the experimental group reached 8.083 with a standard deviation of 0.308 and the arithmetic mean of the control group was 6.921 and a standard deviation of 0.469, and the calculated value of ( $t$ ) was 6.215 with an error ratio of 0.000 for the two groups, which indicates the existence of statistically significant differences for the experimental and control groups in the post-phase tests. Flying, Landing and Fit Pilot Group.

In the stage of rise and stability, the arithmetic mean of the experimental group reached 8,294 with a standard deviation of 0.309, the arithmetic mean of the control group was 7.249 and a standard deviation of 0.357, and the calculated value of ( $t$ ) was 6.643 with an error rate of 0.000 for the two groups, which indicates the existence of statistically significant differences for the experimental and control groups in the post-tests. For the stage of advancement, constancy and goodness of the experimental group.

In the overall performance, the arithmetic mean of the experimental group reached 8,000 with a standard deviation of 0.371, and the arithmetic mean of the control group was 7.206, with a standard deviation of 0.240, and the calculated value of ( $t$ ) was 5.392 with an error ratio of 0.000 for the two groups, indicating the existence of statistically significant differences for the experimental and control groups in the overall performance test and the good of the group. Experimental

## **2- Discussing the results:**

The exercises used by the researcher and the auxiliary means led to the speed of learning and the desire of the learners to perform the exercises, which removed their boring factor. It also charted the correct path that the researcher would like in the stages of performing the snatch lift and moving away from the kinetic and technical errors that affect the performance of the lift, as the auxiliary tools increase the player's attention and also increase his interest in performance, which helps him to develop his motor performance, and these exercises are characterized by modernity and diversity The innovation led to a departure from the traditional method of teaching the movements to be learned and the introduction of a new

method characterized by excitement and suspense, and the clarity of the idea for the researcher in clarifying the required paths in performing the snatch lift contributed to the player mentally absorbing the movement required of him, which led to an increase in the sense of performance and thus Increased movement accuracy, since what happened in increasing movement led to improved accuracy in the performance of movement due to the effect of the relationship between clarity of movement sense and accuracy of movement performance, (Kamil Taha Alwais: 1989: 89), and the researchers also attribute that the exercises were appropriate and appropriate For the sample of research in terms of performance, time, repetition, number of educational units and the comprehensiveness of exercises for all stages of performing the snatch lift, which increased the players' experiences in how to perform and this matter made the players exert pain Increase effort and perseverance to develop their own performance.

Which made the learner more focused on the skill to be learned and mastery, and the diversity helped to stimulate learners to improve performance for the better (Aida Ali Hussein: 1999: 119). Also, iterations in performance led to improvement in physical and functional performance that could be developed and increased with the progress of the stages of learning as it depends mainly on The level of abilities and physical and functional indicators that were adopted in this research, since the process of employing these indicators in the movement paths and high-quality skill levels contributes to achieving the best achievement (Haydar Saud Hasan: 2015: 143).

#### **4- Conclusion:**

The differential learning method contributed to the speed of learning to perform the kidnapping lift, and the exercises designed by researchers and their tools contributed to mastering the movement path to perform the stages of the hijacking lift, as the thrill and excitement that accompanied the performance of the exercises being outside of the familiar exercises led to an increase in their desire to learn, so The researchers recommend emphasizing the assistive devices in learning to perform the snatch lift for beginners because they have an effective role in the speed of learning. It is necessary to conduct studies similar to this current study with the method of differential learning in the game of weightlifting.

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