

## **The Effect of Using Qualitative Exercises on the Digital Level of Hijacking**

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### **Introduction**

The training of the athlete is characterized by the property of relying on scientific research to achieve the highest levels of achievement based on theories and knowledge derived from the results of scientific research for many sciences related to the sports field (4: 6).

Hazem Hassan (1996) states that qualitative exercises are exercises that are performed in a manner consistent with the nature of the performance of motor skill using muscle groups working in the same skill and in the same motor path (5:5). Reem Mohammed (2002) reports that qualitative exercises are exercises that are similar to movement in its form and composition, they are less difficult in terms of the quality of muscle strength used, it is easy for the player to absorb the skill through qualitative exercises (9): 8) As Mohamed Sayed (2004) adds, they are those exercises that are similar in their composition in whole or in part to the dynamic structure of the skill and can be subjected to the organization of training (5:11).

Yahya Al-Hawi (2002) points out that training programs are the executive steps of the set of training experiences that address physical, skill, and planning development, which includes the chronological distribution of these experiences. (16:197)

Weightlifting is one of the main sports in the Olympic Games, as it is characterized by the challenge between the strength inherent in the human body and the dead masses of weights that can only be overcome using the maximum technical and muscular energy, and training here aims to bring the player to the highest possible level of skill and physical fitness and there is no doubt that weightlifting is the best manifestation of strength throughout the ages (19).

It is worth mentioning that the sport of weightlifting depends on some of the fitness abilities that have the greatest role in raising the level of performance and preparing the weightlifter so that he can perform the required physical duties in a good way and defines physical fitness "the training and psychological condition of the weightlifter, which is determined by the development of both (strength, speed, endurance) along with psychological factors" and also provide the weightlifter with physical abilities in a balanced and comprehensive manner (strength, speed, flexibility, endurance, agility, balance). (1: 167)

Thomas Veria (2007) states that the most important obstacle to the progress of players in weightlifting is either their acquisition of poor technical performance, which requires that it be addressed in a focused and rapid manner before the player reaches the stage of stability of skill performance, in which it may be difficult to change the player's skill habits,

in addition to the use of a system of unbalanced strength training that makes the physical development of the player in the direction of correct performance or achieving the appropriate digital levels. Explosive power is developed through training to produce maximum strength in the shortest possible time, and to do so effectively it is necessary to train with maximum strength and in a manner that allows for rapid recovery and to increase optimal adaptations (17:187) (18:5).

### **Research Problem:**

The sport of weightlifting has become a sport practiced by many people around the world that gives them many physical and psychological qualities and gains them personal and moral traits, and the beauty of this sport is evidenced by the art and creativity of the prominence of various muscles of the body.

Through the review and reference survey of references and scientific research in the field of weightlifting and within the limits of the researchers' knowledge, the researchers did not find a study that dealt with the impact of a training program using qualitative exercises at the digital level of the weightlifting quadrant, and the researchers believe that the appropriate physical and motor abilities of the weightlifting quadrant must be available so that the player can perform and accomplish the motor duty, as well as through experience. The researchers noted the dependence of most trainers on personal experience in their training and not relying on training programs based on scientific foundations that contribute to the development of the digital level, which prompted the researchers to conduct this study through the use of qualitative exercises and know its impact on the digital level of the quadruple of Hijacking.

### Research Objectives:

#### The research aims to:

Design a proposed training program using qualitative exercises and know its impact on the digital level of the Hijacking quartet.

### Research Assignments:

1. There are statistically significant differences between the mean pre- and post-measurements of the control group in the numerical level in favor of telemetry.
2. There are statistically significant differences between the mean pre- and post-measurement of the experimental group in the numerical level in favor of telemetry.
3. There are statistically significant differences between the mean dimensional measurements of the control and experimental groups at the numerical level in favor of the experimental group.
4. The percentage of improvement in the experimental group is higher than in the control group at the numerical level.

### Terms in the research:

**Weightlifter:** A weightlifter who performs weightlifts in accordance with the rules of international law (7:5).

**Hand Hijacking Lift:** It is one of the legal lifts in which the bar is raised from the lifting platform (wooden base) to the maximum extension of the arms above the head in one movement (19).

**Qualitative exercises:** These are those exercises related to the requirements of the motor performance of the skill or sports activity practiced, where the style of performance corresponds to the motor path of the skill during the performance under the conditions of competition (9 :8).

**Digital level:** is the maximum weight that the weightlifter can lift in a correct attempt (procedural definition).

## **Research Plan and Procedures**

### **Research Methodology:**

The researchers will use the experimental approach in the method of pre- and post-measurement of the control and experimental groups due to its suitability to the nature of the research.

### **Community and Research Sample:**

The research community included weightlifting players in Minya governorate ranging in age from (18:23) years and the research sample was selected by the deliberate method consisting of (16) sixteen players from the weightlifting quarterbacks of the Faculty of Physical Education and the team of Minya University, and they were divided into two groups, one experimental and the other control of the strength of each (8) players.

### **Moderation of the distribution of the research sample:**

To verify the moderation of the distribution of the members of the research sample, statistical measurements were made for the total research sample (8 weightlifters of an experimental sample + 8 weightlifters of a control sample + 8 weightlifters of a survey sample) from the weightlifters

of the Faculty of Physical Education and the team of Minya University, in order to find the twisting coefficients of growth variables (age, height, weight), physical tests and digital level before starting to use qualitative exercises, and table (1) shows this:

**TABLE (1)**  
**Arithmetic average, median, standard deviation and torsion coefficient of the research sample in the variables of growth age, height, weight, physical tests and the numerical level of the weightlifting quadrant under consideration (n = 24)**

Variables	Unit of Measurement	Arithmetic average	Broker	Standard deviation	Torsion coefficient
<b>Basic variables</b>					
Age	year	21.2	21.1	3.91	0.07
Length	poison	171.5	171.3	1.17	0.51
Weight	kg	85.7	86.0	2.63	0.34
<b>Physical tests</b>					
Dynamometer – Back Force	kg	68.7	68.0	1.48	1.42
Dynamometer – the power of the two legs	kg	76.8	76.0	2.44	0.98
Squat Test – Strength of the Legs	kg	142.6	140.0	5.07	1.54
Bar Test – Cotton Strength	kg	153.0	150.0	7.94	1.13
Sitting from lying down – muscular endurance	number	51.5	51.0	1.14	1.32
Oblique prone bent and stretch arms – muscular endurance	number	40.9	41.0	1.06	.28
Stability by gravity from hijacking mode - balance	second	5.4	5.0	1.17	1.02
<b>Digital Level</b>					
Hijacking	kg	72.4	73.0	3.47	0.52

It is clear from Table (1) that the twisting coefficients of the sample under consideration in the variables of age, height, physical tests and the numerical level of the weightlifters of the research sample ranged between (0.346, 2.051) i.e. they were limited between ( $\pm 3$ ), which indicates the moderation of the distribution of the research sample because of the presence of torsion values within the moderate curve

**Equivalence of the two research groups:**

The following table (2) shows the results of equivalence between the experimental and control research groups in both growth variables (age, height, weight) and the physical tests and the digital level of the weightlifters of the research sample in the lifting of Hijacking in weightlifting.

**TABLE (2)**

**Significance of differences between the mean scores of the yin tribal yen for the experimental and control groups in variables (age, height and weight) Physical tests and digital level in weightlifting (n1 = n2 = 8)**

VARIABLES	UNIT OF MEASUREMENT	EXPERIMENTAL GROUP		CONTROL GROUP		STATISTICAL SEMANTICS	
		M1	P1	M2	P2	(V)	SIGNIFICANCE
Age	year	23.2	1.53	22.6	1.17	0.824	Non-D
Length	poison	171.8	1.02	171.2	0.77	1.242	Non-D
Weight	kg	86.8	1.47	86.4	2.13	0.409	Non-D
<b>PHYSICAL TESTS</b>							
Dynamometer – Back Force	kg	68.5	1.46	67.8	1.83	0.339	Non-D
Dynamometer – the power of the two legs	kg	76.8	1.92	76.4	2.19	0.363	Non-D
Squat Test – Strength of the Legs	kg	142.1	0.98	142.4	1.11	0.536	Non-D
Bar Test – Cotton Strength	kg	152.2	1.00	151.5	0.85	1.411	Non-D
Sitting from lying down – muscular endurance	number	51.4	1.17	52.2	0.76	1.517	Non-D
Oblique prone bent and stretch arms – muscular endurance	number	40.4	1.18	41.1	1.87	0.838	Non-D
Stability by gravity from hijacking mode - balance	second	5.8	0.47	5.5	0.19	1.044	Non-D
<b>DIGITAL LEVEL</b>							
Hijacking	kg	72.1	551	72.6	2.51	0.448	Non-D

The tabular value (v) is two-way at the degree of freedom (14) and the level of  $0.05 = 2.145$

**Table 2** shows that there are no statistically significant differences between the quadruple of the experimental and control groups in the variables of age, height, weight, physical tests and the numerical level of weightlifting, as the calculated value of (T) is less than the value of (T) tabular at the level of 0.05, which indicates the equivalence of the two research groups in those variables.

### **Data Collection Tools:**

In collecting research data, the researchers used the following:

#### **First: Devices and tools used in data collection:**

The researchers used the following devices (Rest meter Pe 3000) to measure length. Medical scale for weighing. Dynamometer. Stopwatch. Wooden base for weightlifting practice. Iron bars and different weights. Stands for the two legs. Dynamometer Device. The proposed training program is an accessory (6).

#### **Second: Forms used in the research:**

1. Expert Opinion Survey Form to Determine the Contents of the Proposed Training Program Appendix (1)

The following conditions have been taken into account in the selection of experts:

2. Registration Form for Anthropometric Measurements, Physical Tests and Digital Level of the Weightlifting Quadruple under Research

## Appendix (2).

### Conditions for selecting an expert:

- First: Obtaining a doctorate degree in physical education or in the field of sports training or weightlifting training.
- Second: Field experience in the field of training (weightlifting) for a period of not less than 3 years. Appendix (3)

### Third: Physical tests:

Through the reference survey to choose the most important tests for each of these physical variables and through the expert survey form to determine the most important of these tests for each variable, the researchers reached a number of tests of physical abilities by reviewing theoretical readings and specialized scientific references, Ismail Mohamed Mahmoud ( 2021 ) ( 3 ), Mohamed AhSan Atieh ( 2021 ) ( 10 ), Ahmed Akram Mahmoud ( 2020 ) ( 2 ), Ruqaya Amjad Abdul Karim ( 2020 ) ( 8 ), Mustafa Abbas Mohamed ( 2019 ) ( 14 ), Mohamed Taha Mahmoud ( 2018 ) ( 12 ), Mohia Hussein Mohamed Hussein ( 2018 ) ( 13 ), Khalid Abdul Raouf Ebada and others ( 2016 ) ( 6 ), and through this the

researchers reached the physical tests by researching which are:

1. The maximum strength is constant: the muscles of the back, the muscles of the legs. By dynamometer. Unit of measurement per kilogram
2. Maximum Moving Power: Legs Squat Test – Cotton Bar Test. Unit of measurement per kilogram
3. Withstand the strength: sitting from lying down to the abdominal muscles, leaning flexion bent and extending the arms to the shoulder girdle. Unit of measurement number.
4. Equilibrium: Stability by gravity from the hijacking position – equilibrium. The second unit of measurement.

#### **Fourth: - Measuring the digital level of the weightlifting competition:**

The researchers measured the digital level of weightlifting skill in accordance with international weightlifting law. **The unit of measurement in kilograms.**

#### **Scientific parameters of the tests under research:**

The researchers conducted the scientific transactions of the physical tests under research on a sample from the same research community and from outside the original sample of (8) eight lifters in the period from 10/10/2021 until 17/10/2021 and as follows:

#### **First: Tests**

##### **A. Honesty:**

To calculate the sincerity of the test, the researcher used the sincerity of excellence, where the researcher applied these tests to the survey sample and the number of (8) players from outside the original sample of the research and was divided into two groups, one of which is distinctive and the other is not distinguished, then the researcher calculated the significance of the differences between the two groups and table No. (3) shows this:

Table (3)

**Significance of differences between high-level and low-level groups in physical tests and the digital level in weightlifting (n1 = n2 = 2)**

Variables	Unit of Measurement	Featured Collection		Undistinguished		value ( Z )	Level of significance
		Average Ranks	Total Ranks	Average Ranks	Total Ranks		
Dynamometer – Back Force	kg	7	21	3	9	*1.96	0.05
Dynamometer – the power of the two legs	kg	7	21	3	9	*1.96	0.05
Squat Test – Strength of the Legs	kg	7	21	3	9	*1.96	0.05
Bar Test – Cotton Strength	kg	7	21	3	9	*1.96	0.05
Sitting from lying down – muscular endurance	number	7	21	3	9	*1.96	0.05
Oblique prone bent and stretch arms – muscular endurance	number	7	21	3	9	*1.96	0.05
Stability by gravity from hijacking mode - balance	second	7	21	3	9	*1.96	0.05
Hijacking	kg	7	21	3	9	*1.96	0.05

Tabular value (Z) at significance level (0.05) = 1.96 \* D at (0.05)

### The previous table3 shows the following:

There are statistically significant differences between the distinct and non-distinctive groups in the physical tests and the digital level in the elevation of the Hijacking under research and in favor of the distinctive group, which indicates the ability of the tests to distinguish between the different groups and this confirms their sincerity.

### B. Stability:

The tests were applied and reapplied to a sample of (8) eight quadrants, which is a sample similar to the research sample and from the non-original sample with a time difference of (3) three days and the correlation coefficients between the first and second applications were found as shown in the following table.

TABLE (4)

Correlation coefficients between the first and second applications in physical tests and the digital level under research  $n = 8$

Variables	Unit of Meas- urem- ent	First App		Second App		Correl- ation coeffici- ent
		M1	P1	M2	P2	
Physical tests						
Dynamometer – Back Force	kg	68.3	1.46	68.8	1.78	.837
Dynamometer – the power of the two legs	kg	76.9	1.92	76.2	1.89	.931
Squat Test – Strength of the Legs	kg	142.6	0.98	142.8	4.03	.756
Bar Test – Cotton Strength	kg	152.4	1.00	152.7	1.68	.811
Sitting from lying down – muscular endurance	numb- er	51.7	1.17	51.3	1.27	.843
Oblique prone bent and stretch arms – muscular endurance	numb- er	40.7	1.18	40.1	1.33	.906
Stability by gravity from hijacking mode - balance	secon- d	5.3	0.47	5.8	0.97	.798
Klein and jerk	kg	79.1	1.55	78.8	1.37	.966

Tabular value (t) at  $0.05 = 0.707$

It is clear from the previous table (4) that:

- The correlation coefficients of the physical tests under research ranged between (0.756, 0.931), which are statistically significant correlation coefficients indicating the stability of those tests.
- The coefficients of non-correlation to the digital level of the hijab elevation under consideration ranged (0.894), which are statistically significant correlation coefficients indicating the stability of those tests.

### Steps to conduct the experiment:

After the tests and measurements as well as the means of collecting data for the research sample have been determined, the researchers have made important procedures and steps for the research that help to conduct it in a peaceful and correct scientific way, and the procedures are shown as follows:-

## **Introductory Stage:**

### **Selection of assistants:**

A number of assistants from weightlifting trainers and holders of training courses in weightlifting competitions were used to help conduct measurements, physical tests and the digital level used in the research. The researchers defined the aspects of the research and the objectives of the study and clarified the requirements of measurement, the method of its performance and arrangement and the role of each of them during the stages of performing the tests. Supplement (4)

### **Exploratory Study:**

The researchers conducted the survey in the period (1 2: 14/10/2021) on a sample of (8) players from the induction community and from outside the basic research sample with the aim of:

- Ensure the validity of the place of conduct of the experiment, ensure the validity of the devices and tools used, ensure the suitability of the tests and their suitability for the research sample, calculate the scientific parameters of the tests used (honesty - stability), ensure the appropriateness of the proposed exercises under research.

### **Results of the survey study:**

1. Validity of the tools and devices used in the proposed training program.
2. The suitability of the proposed exercises for the sample under research.
3. The suitability of the tools, tests and the proposed training program for the sample under research.
4. The accuracy of the program implementation procedure and the organization and coordination of the workflow during the application of tests and measurements to the sample under research.

### **Proposed Training Program:**

The researchers conducted the reference survey of scientific research that dealt with training programs as well as through the design of an expert survey form on the determinants of the proposed program. He came up with the following:

The training program was applied to the pilot group during twelve weeks by 3 training units per week, in the period 17/10/2021 until 9/1/2022 and the stages of the program were determined as follows:

- The first stage (general numbers): its duration (4) weeks.
- The second stage (special numbers): its duration (5) weeks.
- The third stage (numbers for competitions): its duration (3) weeks.

### **Proposed training program for the sample under research:**

The training program is designed according to the objectives after referring to the scientific references Ismail Mohamed Mahmoud ( 2021 ) ( 3 ), Mohamed AhSan Atieh ( 2021 ) ( 10 ), Ahmed Akram Mahmoud ( 2020 ) ( 2 ), Ruqaya Amjad Abdul Karim ( 2020 ) ( 8 ), Mustafa Abbas Mohamed ( 2019 ) ( 14 ), Mohamed Med Taha Mahmoud ( 2018 ) ( 12 ), Mohia Hussein Mohamed Hussein ( 2018 ) ( 13 ), Khalid Abdul Raouf Ebada and others n ( 2016 ) ( 6 ) The expert survey and the proposed program of qualitative exercises for weightlifting players was designed and designed according to the following steps:

**First: Determine the number of weeks of the program and distribute them over the different periods of the program as a whole**

- Number of weeks of the program period = (12) weeks.
- The number of weeks of the general preparation period (4) weeks.
- Number of weeks Special preparation period (5) weeks.
- Number of weeks Preparation period for competitions (3) weeks.
- Interval pregnancy cycle (2:1).
- Weekly pregnancy cycle (2: 1).

**Second: Average distribution (number, time) of training units, and the weekly time of the program and then their distribution over periods and then weeks.**

Table (5)

**Average distribution (number, time) of training modules, weekly time of the program and then their distribution over periods and then weeks.**

PERIOD	GENERAL SETTING				SPECIAL SETUP					PREPARING FOR COMPETITIONS			TOTAL
AL , WEEK	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
NUMBER OF TRAINING UNITS	3	3	3	3	3	3	3	3	3	3	3	3	36 UNIT
AVERAGE TRAINING MODULE TIME	90	90	90	90	90	90	90	90	90	90	90	90	1080 MINUTES
WEEKLY TIME (S)	270	270	270	270	270	270	270	270	270	270	270	270	3240 MINUTES

**It is clear from the table that:**

- The average number of training units during the periods of the program (3) three training units per week (Sunday, Tuesday, Thursday).
- The average time of the training program units (90) ninety minutes during the weeks of the program, based on the expert survey form and the level of the players.
- The total time of the program is calculated by adding the twelve (12) week times

For the program which is = 3240 minutes.

**Third: Distribution of the degree and cycle of pregnancy over periods and weeks**

**Table (6)**  
**Distribution of the degree and cycle of pregnancy at intervals and weeks**

CONTENTS	PERIOD	GENERAL SETTING				SPECIAL SETUP					PREPARING FOR COMPETITIONS			OVERALL AVERAGE
	AL, WEEK	1	2	3	4	5	6	7	8	9	10	11	12	
DEGREE (SEVERITY) OF PREGNANCY		H	H	A	H	M	A	H	M	A	M	M	A	H
PREGNANCY CYCLE		2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1
PREGNANCY RATIO		75:90%	75:90%	90:100%	50:75%	90:100%	90:100%	75:90%	50:75%	75:90%	75:90%	90:100%	50:75%	75:90%

**It is clear from the table that:**

A- The pregnancy cycle during the periods of the program is (2 : 1) i.e. three training units with a high or maximum load and a training unit with an average load.

B- The intensity of the training load and its percentage during the program, then the weeks and then the training units as follows:

- Maximum load (M): 90 : 100% of the maximum performance capacity of the individual.
- High load (H): 75:90% of the maximum performance capacity of the individual.
- Average load (A): 50 : 75% of the maximum performance capacity of the individual.

(c) The weekly pregnancy cycle (2:1) in each week of the program (i.e. two training units with a high or maximum load and one training unit with an average load).

**Fourth: Determine the time of each preparation (physical, skillful) during the program and then distribute it to periods and weeks.**

**A- Physical preparation time of total settings = 60% of program time=**

$$60 \times 3240 / 100 = 1944 \text{ BC}$$

- General physical preparation time = 40% of physical preparation time =  
 $40 \times 1944 / 100 = 778 \text{ BC}$

- Special Physical Preparation Time = 60% of Physical Preparation Time =  
 $60 \times 2500 / 100 = 1166 \text{ S}$

**B- Skill preparation time = 40% of program time =  $40 \times 3240 / 100 = 1296 \text{ s}$**

- Hijacking elevation time = 50% =  $50 \times 1296 / 100 = 648 \text{ BC}$

- Elevation time of the clean and jerk = 50% =  $50 \times 1296 / 100 = 648 \text{ s}$

**Fifth: Determine the time of the elements of physical preparation (general, private) and skill preparation and then distribute it over periods and then over weeks.**

**Elements of general physical preparation:**

- Endurance time 25% of general physical preparation time =  $25 \times 778 / 100 = 194 \text{ BC}$

- Strength time 35% of general physical preparation time =  $35 \times 778 / 100 = 272 \text{ BC}$

- Speed time 15% of general physical preparation time =  $15 \times 778 / 100 = 117 \text{ s}$

- Elasticity time 15% of general physical preparation time =  $15 \times 778 / 100 = 117 \text{ s}$

- Compatibility time 10% of general physical preparation time =  $10 \times 778 / 100 = 78 \text{ s}$

**Elements of special physical preparation :**

- Maximum strength time 40% of physical preparation time =  $40 \times 1166 / 100 = 467 \text{ s}$

- Strength bearing time 20% of physical preparation time =  $20 \times 1166 / 100 = 117 \text{ s}$
- Motor flexibility time 20% of physical preparation time =  $20 \times / 100 1166 = 233 \text{ s}$
- Equilibrium time 10% of physical preparation time =  $10 \times / 100 1166 = 175 \text{ s}$
- Compatibility time 10% of physical preparation time =  $10 \times / 100 1166 = 175 \text{ s}$

### Elements of Skill Preparation:-

- Hijacking time 50% =  $50 \times 1296 / 100 = 648 \text{ BC}$
- Klein and jerk time 50% =  $50 \times 1296 / 100 = 648 \text{ s}$

**Sixth: Distribute the contents of the settings elements over stages, months and weeks. Supplement (6)**

**Seventh: Distribute the contents of the settings elements to weeks and units. Appendix (7)**

The daily training module contains three main parts:

**Introductory part:** (Warm-up and calming): In which exercises are performed aimed at preparing the player physically, motorly and functionally in preparation for carrying out the duties of the training unit and to avoid injury, and the warm-up takes a time of 10 to 15 minutes, and this time is outside the time allocated to the training unit, that is, outside the time of the training program.

**Main part:** It includes the main duties of the training unit and includes duties (physical and technical) taking into account the scientific method in arranging these meals within the training unit.

**The final part (calming down and returning to normal):** It aims to restore the internal organs to their normal state gradually, especially after performing high and maximum loads. This time is outside the time allocated to the training unit, i.e. outside the time of the training program.

### **Executive Steps of Research:**

#### **1. pre measurement:**

The researchers applied the tribal measurements in the physical tests and the digital level under research to the members of the research sample of (16) sixteen players during the period (13-14/10/2021).

#### **2- Implementation of the proposed training program:**

The researchers have identified the components of the training program and its inclusions as well as public and private exercises that are commensurate with the nature of the research and that work in the direction of the skill of weightlifting and commensurate with the program under research based on scientific foundations through references and specialized scientific research and after presenting them to experts and specialists in the field of training in general and weightlifting in particular, In addition to the special vision of the researcher in the field of field training for the sport of weightlifting , the researchers applied the training program to the experimental sample of the research of (8) eight players from the students of the specialization of weightlifting at the Faculty of Physical Education, Minya University during (12) twelve weeks of the period, in the period 17/10/2021 until 9/1/2022. Three (3) training units per week on Sundays - Tuesdays - Thursdays.

### 3. Post measurement:

After the completion of the application of the program, the researchers applied the physical tests and the digital level under research to the members of the research sample during the period 11/1/2022 to 12/1/2022 and under the same conditions that were followed in the tribal measurement, and after the completion of the tests, the researchers monitored the scores in preparation for statistical treatment.

#### The Statistical Method Touch serves:

The researchers processed the data on the results of the research statistically using the statistical software SPSS v22 and through the following statistical coefficients: (arithmetic average. standard deviation. test (v) for the significance of differences. rate of improvement.

The researchers were satisfied with a significance ratio at the level of (0.05).

### Presentation, interpretation and discussion of the results

#### First: Presentation of Results:

Researchers review search results in the following order:

1. There are statistically significant differences between the mean pre- and post-measurements of the control group in the numerical level in favor of telemetry.
2. There are statistically significant differences between the mean pre- and post-measurement of the experimental group in the numerical level in favor of telemetry.

3. There are statistically significant differences between the mean dimensional measurements of the control and experimental groups at the numerical level in favor of the experimental group.
4. The percentage of improvement in the experimental group is higher than in the control group at the numerical level.

TABLE (7)

**Significance of the differences between the average scores of the pre- and post-measurement of the experimental total**

**At the digital level in the hijacking lift under research (n = 8)**

VARIABLE	QS Unit	TRIBAL measurement		TELEMETRY		STATISTICAL Semantics	
		M1	P1	M2	P2	(V)	SIGNIFICANCE
Lifting etc.Turning off	KG	63.3	2.41	81.2	1.77	9.809	D

Tabular value (v) in one direction at degree of freedom (7) and level

$$0.05 = 1.895$$

Table (7) shows that there are statistically significant differences between the pre- and post-measurements of the weightlifters of the experimental group in the numerical level in the height of the Hijacking under consideration, since the calculated value of (T) is greater than the tabular value of (T) at the level of 0.05.

TABLE (8)

**Significance of differences in the average scores of the pre- and post-measurement of the control total At the digital level in the hijacking lift under research (n = 8)**

VARIABLE	UNIT OF MEASU REMENT	TRIBAL measurement		TELEMETRY		STATISTICAL Semantics	
		M1	P1	M2	P2	(V)	SIGNIFIC ANCE
Hijacking Lift	KG	63.9	2.00	68.7	1.46	5.990	D

Tabular value (v) in one direction at degree of freedom (7) and level

$$0.05 = 1.895$$

Table (8) shows that there are statistically significant differences between the pre- and post-measurements of the weightlifters members of the control group in the numerical level in the height of the Hijacking under consideration, as the calculated value of (T) is greater than the tabular value of (T ) at the level of 0.05

. TABLE (9)

**Significance of differences between the mean scores of the two dimensional measurements of the experimental and control groups At the digital level in the Hijacking elevation under consideration (n1 = n2 = 8)**

VARIABLE	UNIT OF MEASUREMENT	EXPERIMENTAL Group		CONTROL Group		STATISTICAL Semantics	
		M1	P1	M2	P2	(V)	SIGNIFICANCE
<b>Hijacking Lift</b>	KG	81.2	1.77	68.7	1.46	9.447	D

The tabular value (v) in one direction at the degree of freedom (14)

and the level of  $0.05 = 1.761$

Table 9 shows that there are statistically significant differences between the two dimensional measurements of the individual lifters of the experimental and control groups in the numerical level in the height of the Hijacking in question, since the calculated value of (T) is greater than the tabular value of (T) at the level of 0.05

TABLE (10)

**Rates of improvement of the digital level in the elevation of Hijacking under consideration among members of the experimental and control research groups**

VARIABLES	EXPERIMENTAL Group			PERCENTAGE OF IMPROVEMENT	CONTROL Group			PERCENTAGE OF IMPROVEMENT
	M2	M1	$M^2 - M^1$		M2	M1	$M2 - M1$	
Hijacking Lift	81.2	63.3	17.9	<b>%28</b>	68.7	63.9	4.8	<b>%8</b>

Table No. (10) shows the following:

The scores of the quadruple of the experimental and control groups improved in the digital level in the height of the Hijacking under the w, where the scores of the experimental group improved by (28%) while the

percentages of the improvement of the scores of the control group (8%) came in the height of the Hijacking respectively.

### **Second: Interpretation and discussion of the results:**

**In the light of the results of the statistical analysis, and within the limits of the measurements used, and through the objectives of the research, the researchers were able to discuss the results as follows:**

It is clear from Table (7) that there are statistically significant differences between the pre- and post-measurements of the experimental group in the variables under research conducted by the Wilks on non-parametric method, where we find that since the calculated value of (T) is greater than the value of (T) tabular at the level of 0.05. This indicates that there are statistically significant differences between the pre- and post-measurements in the numerical level of the weightlifting quartet under research and in favor of the dimensional measurement.

It is clear from the feasibility of (10) the percentages of improvement between the average pre- and post-measurements of the sample under research in the experimental group by (28%), which indicates the positive qualitative training in improving the numerical level of the weightlifting quadrant in the sample under research.

The researchers attribute this progress in performance to the impact of the application of the proposed training program using qualitative training exercises as the qualitative exercises in a program in an organized and balanced manner consistent with the degrees of intensity and training load, where the researchers took into account during the implementation of the program the use of gradient resistors in intensity in order to improve performance and reach the players to the best performance.

The proposed training program for quality training, in which the researchers took into account the use of different and varied exercises using various resistors, contributed to the improvement of the digital level of players.

And that qualitative exercises have multiple benefits including improving athletic performance, enhancing the efficiency of movement, improving special muscle strength, improving muscle balance, which works on muscle efficiency and improving the physical fitness of the sample under research that is poured into the final output of strength and that determines the digital level of the quadruple.

The results of the current study are consistent with many reference research such as Ismail Mohamed Mahmoud ( 2021 ) ( 3 ), Mohamed Ahsan Attia (2021) (10), Ahmed Akram Mahmoud ( 2020 ) (2), Ruqaya Amjad Abdul Karim ( 2020 ) ( 8 ), Mustafa Abbas Mohamed ( 2019 ) ( 14 ), Mohmed Med Taha Mahmoud ( 2018 ) ( 12 ), Mohia Hussein Mohamed Hussein ( 2018 ) ( 13 ), Khalid Abdul Raouf Ebada and others N ( 2016 ) ( 6 ) Thus, the validity of the first assumption, which states:

There are statistically significant differences between the average scores of the pre- and post-measurements of the research sample members in some physical variables and the numerical level of the weightlifting quadrant in favor of dimensional measurement.

Table (8) shows that there are statistically significant differences between the pre- and post-measurements of the weightlifters members of the control group in the numerical level in the height of the Hijacking under consideration, as the calculated value of (T) is greater than the tabular value of (T) at the level of 0.05.

The researchers attribute the reason for the progress of the control group in the dimensional measurement of the pre-measurement in physical variables and the digital level to the fact that the application of the program followed (traditional) contained the methods and methods of training in basic skills to develop individual skill performances, and undoubtedly the traditional program applied to the "control group" and uses training for physical abilities, a program followed by most trainers and also leads to the occurrence of physical and digital development, but does not benefit from qualitative or special exercises directed at improving the technique as well as In the program applied to the experimental group, perhaps the amount

of improvement between the two groups in telemetry is the difference between the progress of the two groups.

**From the foregoing, we find that the second hypothesis of the research, which states that there are statistically significant differences between the average pre- and post-measurements of the quadrants members of the control group in the physical variables and the numerical level in the height of the Hijacking in question. "It has been achieved.**

Table 9 shows that there are statistically significant differences between the two dimensional measurements of the individual lifters of the experimental and control groups in the numerical level in the height of the Hijacking in question, since the calculated value of (T) is greater than the tabular value of (T) at the level of 0.05.

The researchers attribute this progress to the proposed training program, which had a positive impact on the experimental group more than the program followed (traditional) that was implemented on the control group, as the training program followed included qualitative exercises which in turn contribute to the motor flow and optimal work of the muscles and thus work to save effort and then shorten the total time of the complex skill.

This is also consistent with the studies of Mohya Hussein Mohamed Hussein (2018)(13), Mustafa Abbas Mohamed (2019)(14), Ruqaya Amjad Abdul Karim (2020)(8), Ahmed Akram Mahmoud (2020)(2), Mohamed Ihsan Attiyah (2021)(10), Ismail Mohamed Mahmoud (2021)(3) Mohamed Taha Mahmoud (2018)(12) Khaled Abdel Raaf Ebada and others al. (2016)(6) "Nassef Mohamed Mahmoud Eid" ( 2014) ( 15) .

**From the foregoing, we find that the third hypothesis, which states that "there are statistically significant differences between the mean dimensional measurements of the experimental and control group in the physical variables and the numerical level in the elevation of the Hijacking in question. " It has been achieved.**

## Conclusions and recommendations

### First: Conclusions:

**Based on what they showed from the results of the research and in the light of the objective and hypotheses of the research, the researchers reached the following conclusions:**

1. The qualitative exercise program showed a positive impact on an improvement in the digital level of lifters.
2. The experimental group to which the qualitative exercise program was applied outperformed the control group in the variables under consideration
3. Rates of improvement in neuromuscular compatibility components and the effectiveness of complex skill performances varied in the two groups, while the rates of improvement were better in the experimental group.
4. The qualitative exercise program showed an improvement in the digital level ranging from 17% to 28%.

## **Second: Recommendations:**

**In light of the results of the research, the researchers recommend the following:**

1. Use the proposed training program for qualitative training because of its positive impact on the digital level of weightlifting players.
2. Use the proposed training program for qualitative training on different samples for weightlifting players.
3. The need to apply other training methods to raise the physical and skill level of young weightlifters.
4. Attention to the development of muscle work of the trunk area for its effective role in all skills
5. Conducting research on the relationship of qualitative exercises to the advancement of the digital level in scientific training.
6. Conduct other research dealing with other physical and skill traits.
7. Planning training programs on scientific grounds.

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