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The Effect of Quantitative Comprehensive Resistance Training on Some Basic Skills in Youth Football

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ABSTRACT

The importance of the research in the use of resistance exercises in the quantitative comprehensive method by the researcher is based on studied scientific foundations to develop some basic skills in football for the youth group and overcome the weakness in those skills in order to serve the development of this game in the future As for **the research problem** through the researcher's experience, notice that there is a weakness in the player's performance Youth in basic skills and the lack of focus of some coaches on the exercises of the counter-resistance exercises in the quantitative comprehensive method of the young player, so the researcher decided to study this problem by putting the counter-resistance exercises in the quantitative comprehensive method that may raise the level of some basic skills towards the better, and the **objectives of the research** were to prepare the resistance exercises in the quantitative comprehensive method In developing some basic skills in football for youth, identifying the statistical differences between the pre- and post-tests of some basic skills in football for youth, and the researcher used **the** experimental method by designing one group as it is the most suitable for such a study.youth) who numbered (18) players, where (8) players were allocated to conduct the reconnaissance experiment on them, and the researcher selected (10) players representing **the research sample** with a percentage of (55.55%) from the original community. One of the most important **conclusions** is that the counter-resistance exercises in the quantitative comprehensive method prepared by the researcher contributed to the development of some basic skills for football playersFor guys

1- Introduction to the research

1-1 Introduction and Importance of Research

The scientific progress that we see today in various fields of life is the result of experiences, experiments and researches through which many results were inferred to serve all humanity, and this development was reflected in the field of physical education and its various means and opened new horizons for researchers and scholars in the field of football and performance development, and to reach the best good results by following everything new and creative in sports sciences, which is a necessity.E These should be taken into account when planning the training process and its curricula.

Despite the scientific progress in the field of training, more research and studies must be conducted to reach many scientific facts in order to reveal the best methods and methods to develop each of the sporting events optimally in an attempt to invest human energy Maximum Borders , and football in particular Count from Games which It can be trained in different and varied ways and methods according to the age group and the type of competition, and that the compound training is suitable for the youth group, as the resistance is in the quantitative comprehensive method. she Physical and skill exercises at the same time.

Football has components that the player must have in order to be able to practice them, and these components are (physical, skillful, planning, and psychological preparation) and the basic skills are the second pillar after the physical preparation that qualifies the player to improve the technical level of the game , and that the basic skills are considered one of the technical aspects in all sports activities without which the distinctive character of the type of sports activity practiced does not appear, which is considered one of the basic aspects in the implementation of the skill aspect. Football is characterized by the abundance and diversity of its basic skills, and the level of performance in football has increased in line with the development of playing methods and the diversity of defensive and offensive plans, and the basic skills in football are the first reason for the distinction of football with all this popularity in most parts of the world, and it is the essence of achievement in matches, and without the player mastering the performance of those skills, he will not be able to implement the due duties properly , hence the importance of researching the use of exercises. Counter-resistance in a comprehensive quantitative method by the researcher is based on studied scientific foundations to develop some basic skills in football for the youth group and overcome the weakness in those skills in order to serve the development of this game in the future.

1.2 Research Problem

Through the researcher's experience, he noticed that there is a weakness in the performance of the young player in basic skills and the lack of focus of some coaches on the exercises of resistance training in the quantitative comprehensive method of the young player.

Therefore, the researcher decided to study this problem by developing counter-resistance exercises in a comprehensive quantitative method, which may raise the level of some basic skills for the better.

1-3 Research Objectives

1- Preparation of counter-resistance exercises in a quantitative comprehensive method in developing some basic football skills for young people.

2-Identifying the statistical differences between the pre- and post-tests of some basic skills in youth football.

1.4 Forcing the search

1- There are significant differences in some basic football skills for youth in the pre-post-tests and in favor of the post-tests.

1.5 Research Areas

1-5-1 Human Field: Players of the Specialized Center in Dhi Qar Youth Category for the 2023-2024 Season

1-5-2 Temporal Domain: 11/12/2023- 7/5/2024

1.5.3 Spatial Field: Specialized Center Football Stadium in Dhi Qar

2- Research Methodology and Field Procedures:

2-1 Research Methodology:

The nature of the problem to be solved determines the research method used by the researcher, so many phenomena can only be studied through a method that suits the problem to be researched, so the researcher used the experimental method by designing one group as it is the most suitable for such a study.

3-2 Research Population and Sample:

The researcher determined the research population by the deliberate method, and they represent the players of the specialized center in football in Dhi Qar governorate (youth category), which are (18) players, where (8) players were allocated to conduct the reconnaissance experiment on them, and the researcher selected (10) players representing the research sample with a percentage of (55.55%) from the original community.

2.3 Sample homogeneity:

Statistical methods were used by means of arithmetic mean, standard deviation , and coefficient of difference for morphological measurements to find out whether or not the difference is real, and Table (1) shows this. It has been proven that the value of the coefficient of difference is less than 30 **%** and the sources state that the lower the coefficient of difference is less than 30**%,** it means that the sample is homogeneous.

Table (1) shows the homogeneity of the research sample in age, height and weight using the coefficient of difference , which shows the values less than 30 %.

Divergence coefficient	Standard deviation	Arithmetic mean	Unit of Measurement	Measurements and Variables	t
1.44 ٪	2.99	207.09	month	Chronological age	1
3.56 ٪	2.21	61.93	kg	Weight	2
1.49 ٪	2.51	168.4	poison	Length	3

2-4 Means and Tools Used:

✓ **Means of collecting information:**

* Arab and foreign sources. * Personal interviews. *Experimentation* Testing and measurement.

✓ **Tools and Devices Used:**

* Tape measure. * Japanese-made whistle. * Medical scale. * Japanese-made *CASIO handheld calculator. * Irish-made Dell Ci7 laptop.

* Laser discs (DVDs) (6). * Legal football stadium * Legal football balls (3).

* Adhesive tape with a width of (5) cm and stationery. * Casio electronic stopwatch.

2-5 Identifying the skills and tests used in the research:

By reviewing the literature, scientific sources, and researches carried out in the field of football, and through personal interviews with experts to determine the most important basic skills suitable for the research sample, the skills (passing, controlling, and scoring) were selected

As for determining the tests for basic skills:

After identifying the basic skills studied in the research (passing - controlling - scoring), the researcher prepared a questionnaire form to determine the most appropriate test to measure each of the basic skills in football under study, and this form, which contains (3) tests for each skill, was presented to a group of experts and specialists in the field of football (13) experts and specialists, and after emptying the forms and processing them statistically by extracting the percentages, the test was nominated.who got the highest percentage for each skill .

2.5.2 Tests used in the research:

- **Passing Skill Test: (Zuhair Qasim Al-Khashab et al., 1999).**

✓ **Test Name:** Test of the average passing accuracy of three circles drawn on the ground for a distance of (20) meters.

✓ **Purpose of the test:** Measure average passing accuracy.

✓ **Necessary tools:** specific area for the test, (5) balls, tape measure, burke.

✓ **Procedures:** Three overlapping circles are drawn, their diameters respectively (2 m, 4 m, 6 m) and they are given degrees respectively (6, 4, 2) degrees, where the center of the circles is the point of distance between the starting line and the three circles, which is a distance of (20) m.

✓ **Registration: - The** player is given (5) consecutive attempts.

- The number of points obtained by the player from the five attempts is calculated.
- The highest score a player gets is 30 points.

✓ **General Guidelines:** - The attempt is considered a failure in case the ball falls out of the circles.

- In the event that the ball falls on the circle line, the following degree shall be given according to the sequence of the circles (1, 3, 5).

- **Control Skill Test (Zuhair Qasim Al-Khashab et al., 1999).**

✓ **Test Name:** Stopping the Movement of the Ball (Control).

✓ **Purpose of the test:** Measure accuracy in stopping the ball and regaining control.

✓ **Necessary tools:** (5) legal footballs, tape measure, Burke.

✓ **Procedures:**

- Planning the test area .
- The player stands behind the designated test area.
- The coach stands with the ball on the throwing line that is (6) meters away from the test area, which is a square measuring (2x2) meters, and after giving the start signal, he throws the ball (high ball) to the player who advances from the starting line to the test area, trying to stop the ball with any part of the body, except the arms, and then return to the starting line and start again.
- The ball must be stopped behind the line and within the designated area of the test, with one foot inside the test area.
- If the coach makes a mistake in throwing the ball, the attempt is repeated and does not count (throwing the ball is done by moving the hands from the bottom up).

✓ **Registration** :

- It gives the player five consecutive attempts.
- It is granted (zero) for the failed (incorrect) attempt.
- Two marks are awarded for each correct attempt.
- The highest score a player gets is 10 points.

✓ **Guidance:**

- The attempt is not considered valid in the following cases:
- If the player does not succeed in stopping the ball.
- If it passes any line in the test area by more than one foot.
- If he stops the ball illegally in football.

- **Scoring Test from Rolling: (Raysan Khraibet Majid, 1989).**

- Purpose of the test: Measuring the accuracy of scoring from rolling between the marks.

- Tools.

Legal football, (5) markers, stopwatch, borc material.

- **Testing procedures.**

1- Layout of the test area (five indicators are placed one away from the other (9 feet) and the indicator is far from the starting line (also 9 feet) as shown in Figure 7.

2- Test Administrator: Registrar, calls the namesof the players first and records the test result second.

Method of Performance: The player stands with the ball behind the starting line, and when the start signal is given, the player runs the ball with the foot between the five markers, and then the scoring is scored on the squares and the number of attempts is 8 times for each player, so that the scores of each of the eight balls are calculated as follows.

(3) Scores when scoring in field No. (3).

(2) Two marks when scoring in field No. (2).
(1) A score when scoring in field No. (1).
(zero) in the rest of the target areas.
The highest score obtained by an individual is (24) through (8) attempts.

2-6 Exploratory Experiment:

The researcher conducted the reconnaissance experiment on Sunday 24/12/2023 at ten o'clock in the morning at the Sumer Sports Stadium on a sample of (8) players from the research community and from outside the sample to apply the tests, and after a period of (7) days, the test was repeated with the same procedures in terms of time and place, and the purpose of this experiment was to know the negative aspects and the variables that will face the work. Also, to make sure of the following:

1- Finding the Scientific Foundations of Tests
2- Knowing the appropriate tools and devices to perform these tests.
3- Know the right time and place to conduct it.
4- Ensure the adequacy of the supporting staff.
5- Define the assistant staff in how these tests are applied.
6- Knowing the difficulties and problems facing the researcher in applying these tests before applying them in the main experiment.

And perform exercises on a sample search to identify :

1- Rationing these exercises and finding the components of pregnancy for them (intensity, size, and rest).
2- Find out how well the sample is able to apply these exercises.
3- Know the time needed to apply these exercises.
4- Knowledge of the assistant staff and the trainer in how to apply these exercises because the researcher does not have the right to apply them himself because it is considered a bias against a currency.
5- Knowing the difficulties and problems facing the researcher in applying these exercises before applying them in the main experiment.

2-7 Scientific Foundations of the Test:

First: The truth:

The researcher presented the tests to a group of experts and specialists who agreed on their validity to measure what they were designed to measure, and this procedure is considered to be true in the tests.

Secondly: The Stability

The researcher was used to calculate the stability coefficient (test and retest method) with a time interval between the first and second tests (7) days The first test was conducted on Sunday 24/12/ 2023 Clock Ten a.m. and it was returned on Sunday 31/ 12/2023 Clock Tenth morning, on (8) players from the research community and outside the sample, The researcher extracted the stability coefficient through the correlation coefficient (Pearson) between the results of the first test and the results of the second test, and extracted the significance of the correlation. Enjoying morale high .

Third: Objectivity:

The objective test is the one in which there is no difference between the opinions of the judges if the individual is judged by more than one referee" (Muhammad Jassim Al-Yasiri, 2010), as the researcher found the objectivity coefficient for each of the skill tests by finding the simple correlation coefficient (Pearson) between the results of the two referees in the first application

conducted during the exploratory experiment, and the correlation coefficients were high, which indicates the objectivity of the tests used in the research.

Table (2) builds the coefficient of consistency and objectivity of the tests under study

Objectivity Factor	Stability Coefficient	audition	t
0.93	0.88	Passing Skill Test	1
0.94	0.91	Control Skill Test	2
0.93	0.90	Scoring Skill Test	3

2-8 Field Research Procedures:

2.8.1 Pre-tests for the research sample:

The researcher conducted the pre-tests of the research group before starting the implementation of the training curriculum on Tuesday 2/1/2024 at ten o'clock in the morning (at Sumer Sports Stadium), and all the members of the research sample (10) players attended, and the measurements (lengths, mass, and age) were identified.) then the researcher and the assistant team conducted tests on the research group.

2.8.2 Quantitative Comprehensive Resistance Exercise

In order to obtain exercises with good effectiveness, it was necessary to review the modern sources and references in the science of sports training that would enrich the researcher with information that helps him in developing exercises, so the researcher prepared the exercises for the members of the research sample based on the scientific foundations of training and to some scientific sources and references, as well as the opinions of some specialists in the field of sports training science and the game of football.

Quantitative mass resistance training is a type of exercise that aims to improve muscle strength and endurance by using external resistance, such as weights or resistances, to stimulate muscles to work. These exercises follow a quantitative approach, where the number of sets, repetitions, and weight used are precisely determined.

The exercise started on Thursday 4/1/2024 until Thursday 29/2/2024 for eight weeks with three training units per week (Sunday, Tuesday, and Thursday).

Here are some explanations of the curriculum:

- Training Phase (Special Preparation Phase)
- The number of training units per week is (3) units.
- The total number of training units is (24) training units.
- Training days (Sunday, Tuesday, Thursday).
- Main section time (55-75) minutes.
- Type of training module in terms of time (short and medium).

- Use sub-maximum and maximum intensity.
- The mean intensity of the experimental group was extracted to standardize the intensity and start with a single starting line.
- The researcher used the principle of gradient by intensity in an ascending manner.
- The researcher took into account the scientific foundations in the relationship between the components of the training load (intensity, size, and comfort)
- Breaks were determined on a work basis.

2.8.3 Post-tests for the research sample:

The post-test of the research sample was conducted on Sunday 3/3/2024 (at the Sumer Sports Stadium) after the completion of the period of applying the curriculum, which took (8) weeks, and the researcher was keen to provide the same conditions as the pre-tests.

2.9 Statistical Methods:

The researcher used statistical methods that helped to process the results and test the research hypotheses through the use of the statistical package (IBM SPSS Statistics 24), which are:

- Arithmetic mean.
- Standard deviation.
- Divergence coefficient.
- Pearson correlation coefficient .
- T)) test for threaded samples.

3-1 Presentation and analysis of the results of some basic skills of the pre and post tests of the research group:

Table (3)

Shows the values of arithmetic medians, standard deviations, and the calculated T-value for some of the basic skills of the pre- and post-tests of the research group.

Conclusion	Sig	T calculated	(After me - Female Officer)		(Tribal - Officer)		Unit of Measurement	Basic Skills
			on	Going to	on	Going to		
Moral	0.000	8.67	3.70	18.96	2.81	14.22	degree	Scroll
Moral	0.000	7.13	2.49	9.80	3.29	6.96	degree	takeover
Moral	0.000	7.92	2.02	15.02	2.41	12.68	degree	Scoring

The results of the pre- and post-tests of the research group appeared as shown in Table (3) through the above, we see thatthere are significant differences because the value of SIG is less than (0.05) for all the skills under research.

3-2 Discussion of the results of some basic football skills

It follows from Table (3) that there are significant differences in the results of some basic skills between the pre- and post-tests of the experimental group and in favor of the post-tests, and thus the first hypothesis is achieved.

The researcher attributes the development of the research group to the regularity of the players and practice in the training units, which had an important and vital role in the development of basic skills in football live, as (Kammash and Al-Shawish) mentions that through practice, we can judge the occurrence of learning and development because it is one of the patterns of behavior that the individual performs to improve his performance, and in order for learning to occur, the practice of practical performance must be done, (Youssef Lazem Kamash and Nayef Zuhdi Al-Shawish, 2011).

The researcher attributes the development of the control skill to the effect of counter-resistance exercises in the comprehensive quantitative method, as it emerges as the most used skill throughout the match, which requires accuracy and mastery in performance, and this is in line with what Hanafi Mahmoud pointed out: "Continuous training on the performance of any skill, clarifying the correct performance and correcting mistakes leads to its performance becoming automatic and accurate without thinking about its parts" (Abou Ela Abdel Fattah & Mohamed Nasr El-Din Radwan, 1993). The player can become automatic in the technical performance of the skill when regular training with the ball and a lot of repetition of special specific exercises" (Sabri Al-Adawi, 1997).

The researcher also attributes the development **of the passing skill** to the use of various exercises in different types of handling and the use of counter-resistances , which caused the development of the player's technique as a result of increasing his sense of the ball, and this is in line with what Al-Khashab pointed out: "It is necessary for the player to learn the method of different handling in order to be able to serve his team, and the mastery of the handling is due to the technical aspect of the player (Zuhair Qasim Al-Khashab et al., 1999).

On this basis, leg strength during performance is the main criterion for the development and improvement of skill performance from a physical point of view, which is reflected in the skill performance, as the repetition of exercises has had a prominent role in the development of passing in its many forms, which are characterized by a high degree of accuracy.

As for the researcher, he attributes the reason for the development of the scoring skill to the counter-resistance exercises in the comprehensive quantitative method included in the training modules for the scoring skill and to the commitment of the members of the research sample to the scoring exercises, as practical training is the best means in building the player physically and skillfully and the players gain the necessary experience to solve the problems they face in the match, and through the preparation of the exercises of the counter-resistance exercises in the quantitative comprehensive methodwhich was applied from the research group well, which

included the repetition of scoring from the movement, led to the development and development of this skill, which was reflected on the side in terms of accuracy in scoring, and scoring is considered one of the important and basic skills in football and through which the results of matches can be decided, and all the players do inside the stadium is to create a suitable opportunity for scoring and that he needs accuracy and strength, and this is what (Muwaffaq) confirmed: "Goals can only be achieved if they are available in the player. Accuracy and strength that help to hit the ball hard and speed in scoring" (Muwaffaq Asaad Mahmoud, 2009).

4 Conclusions and recommendations

4.1 Conclusions

Based on the findings of the research, and the accompanying statistical treatments, discussion and extrapolation within the limits and nature of the research sample, the researcher was able to reach the following conclusions:

1- The quantitative comprehensive resistance exercises prepared by the researcher contributed to the development of some basic skills for youth soccer players .
2- The quantitative comprehensive resistance exercises prepared by the researcher are suitable for the youth group in terms of skills development.
3- The quantitative comprehensive resistance exercises prepared by the researcher are appropriate in the special preparation period
4- The quantitative comprehensive resistance exercises prepared by the researcher are suitable in terms of ripples in intensity, size, and rest periods.
5- The quantitative comprehensive resistance exercises prepared by the researcher are suitable for use at maximum and sub-maximum intensity.

5-2. Recommendations:

1- Adopting the quantitative comprehensive resistance exercises prepared in the training curricula for age groups, especially for young players.
2- Conducting similar studies in physical and motor abilities and basic skills that were not addressed in the study.
3- Conduct similar studies for other age groups and other training methods related to the development of physical abilities and complex skills and find out the results of these studies.

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Attachment (1)

Basic Principles:

1. Resistance: Use external resistance to stimulate the muscles to work.
2. Repetition: The number of times you perform the exercise.
3. Group: A set of iterations.
4. Weight: The weight or resistance used in the exercise.

Objectives:

1. Improve strength: Increase muscle strength.
2. Improved endurance: Increased muscular endurance.
3. Improve body composition: improve body composition and reduce fat.

Examples of exercises:

1. Push-ups: Use weights or resistance exercises to stimulate your chest muscles.
2. Pull-ups: Use weights or resistance exercises to stimulate your back muscles.
3. Large muscle exercises: Use weights or resistance to stimulate the muscles of the legs and thighs.

Basic exercises:

1. Push-ups: 3 sets × 8-12 repetitions.
2. Pull-ups: 3 sets × 8-12 repetitions.
3. Large Muscle Exercises: 3 sets × 8-12 repetitions.
4. Small muscle exercises: 3 sets × 12-15 repetitions.

Special exercises:

1. Shoulder exercises: push-ups, pull-ups, shoulder exercises.
2. Arm exercises: push-ups, pull-ups, arm exercises.
3. Leg exercises: push-ups, pull-ups, leg exercises.
4. Abdominal exercises: push-ups, pull-ups, abdominal exercises.

Additional exercises:

1. Cardio exercises: running, swimming, cycling.
2. Stretching exercises: stretching exercises for large and small muscles.

Tips:

1. Start with light exercise: Start with light exercises and gradually increase intensity.
2. Listen to your body: Listen to your body and avoid injuries.

3. Persistence: Continue to exercise regularly to achieve the desired results.
4. Start with a light weight: Start with a light weight and gradually gain weight.
5. Focus on Technique: Focus on the right technique to perform exercises.
6. Listen to your body: Listen to your body and avoid injuries.

Common mistakes:

1. Start with intense exercise: Start with intense exercise without enough physical preparation.
2. Don't listen to your body: Don't listen to your body and ignore the injuries.

3. Interruption: Interruption of exercise without re