

Effect of a variety exercises on some physical abilities and shooting accuracy of free kick for junior football players

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Abstract

The importance of the research lies in preparing a variety of exercises and knowing their effect on some physical abilities and the accuracy of the scoring skill for the direct free kick in football for young players.

As for the research problem: the researchers believe that the research problem is concentrated in the lack of coaches' use of various exercises to develop the physical abilities that are directly involved in the performance of the direct free kick in football. Therefore, the researchers considered preparing a variety of exercises (physical and skill), which would affect some physical abilities that contribute to the accuracy of direct free kick soccer scoring, so the researchers wanted to delve into this experiment. The research aimed to: Preparing a variety of soccer exercises and knowing the effect of various exercises on some physical abilities contributing to the accuracy of direct free kick scoring for young football players. As for the search hypothesis: There is an effect of various exercises on some physical abilities of young football players and there is an effect of various exercises on the accuracy of direct free kick scoring for young football players. As for the research methodology and field procedures, the researchers used the experimental method to solve the research problem , as for the research community, it has been identified with the junior players of the Baghdad governorate clubs for the season 2020-2021, and their number is (8) players who are proficient in the direct free kick skill, and they were distributed into two groups (experimental and control) by simple random method (lottery).

As for the most important conclusions, they were as follows: The various exercises helped to develop some physical abilities represented by (explosive ability, speed characteristic, motor speed), and the various exercises contributed to developing the accuracy of direct free kick soccer scoring. While the most important recommendations included the following: The researchers recommend paying attention to the use of various exercises according to scientific methods and training methods when training football players, and the researchers recommend conducting similar studies on different age groups.

Introduction:

The follower of football matches, whether between national teams or international clubs, recently finds them characterized by strength, speed and excitement, and that these advantages are the result of the high-level physical and skill capabilities that the player possesses in those matches compared to the local player, which requires a serious pause from those in charge of developing the game of football to work vigorously and rapidly and at the same time scientific and thoughtful to research and try to find quick and innovative solutions that help reduce the difference between the local and global levels on the one hand and keep pace with the development in the game of football on the other hand.

And physical abilities are one of the basic pillars that a football player must possess in order to be able to implement the requirements of the game as required, and the development of those physical abilities according to modern training methods will certainly reflect on the skillful performance to be better.

Some researchers have emphasized the effectiveness of some training methods that work on developing physical and motor abilities of various types, such as (explosive ability, maximum strength, strengthening power, and others), but these methods varied and differed, and some of them became limited in effect and may at other times be useless, which calls for the

use of modern training methods and methods that work to bring the training process out of a state of monotony and stagnation into another state characterized by renewal and vitality.

Complexity is one of the prominent features of the modern training process, which requires the coach, who seeks to achieve the best results, to measure the smallest details that affect the performance of his players and work to discover their weaknesses, whether (physical, skill, ... and others) and address them, the coach may achieve a development in the physical abilities of his players, but this development, if it does not coincide with the player's investment of the correct rules, may lead to a waste of effort - spending an amount of physical ability in an unregulated manner, depleting energy sources, wasting time and not achieving the desired results from the training process and becoming useless .

Hence the importance of the research in preparing a variety of exercises, the aim of which is to develop some physical abilities, which directly contribute to the accuracy of direct free kick scoring among young football players.

Research problem :

The player's possession of only physical and skill capabilities is not sufficient to perform the requirements of the game in the best way, so it is necessary to focus in the training process on the good investment of the correct technical rules, whether (mechanical or kinematic), which helps to develop the skill performance to be better. By informing the field researchers and following up on the training process, they noticed the lack of trainers' use of physical abilities training that directly participates in the performance of the free kick in football, as well as the lack of optimal investment of the correct rules in the skillful performance of the free kick. Therefore, the researchers decided to prepare a variety of exercises (physical and skill), which would affect some of the physical contribute to the accuracy of free-kick scoring in football, so the researchers wanted to go into this experiment.

Research objective:

1. Preparing a variety of soccer exercises.
2. Knowing the effect of various exercises on some physical abilities contributing to the accuracy of direct free kick scoring for young football players

Research hypotheses :

- 1- There is an effect of various exercises on some physical abilities of young football players.
- 2- There is an effect of various exercises on the accuracy of direct free kick scoring for young football players.

Research fields:

The human field: The young players of Baghdad Governorate clubs for the season 2020-2021.

Time field: from 14/11/2020 to 3/5/2021.

Spatial field: Al Shaab Sports Stadium.

Research methodology and field procedures:

Research Methodology:

The researchers followed the experimental method as it fits with the nature of the research problem, and also chose to design the method of the two equal groups (experimental and control) with pre and post- tests..

Community and sample research:

The research community was determined by the players of Baghdad football clubs for the junior category for the sports season 2020-2021, and their number is (14) players, due to the availability of the research requirements in them, as they carry out the (direct free kick in football), the researchers chose a sample of them of (8) players by the simple random method (the lottery), and they were also divided equally into two groups (experimental and control) by the simple random method.

Means, devices and tools used:

Data collection methods:

- Arab and foreign sources and references.
- Personal interviews.
- Tests and measurements.
- Special forms for recording test results for players.

Tools and devices used in the research:

- A legal football field.
- 10 legal footballs.
- A tape measure in centimeters.
- Terraces of different heights (50,60,70,80,90) cm for each height of two (2).
- Sports stopwatch number (3).
- Whistle number (3).
- Rings with a diameter of (60 cm) number (10).
- Number of cones (10).
- Mobile targets with a length of (1 m x 1 m) number (2).
- Ground ladder with a length of (4) m, number (1)
- Rubber band with a length of (2) m, number (1)
- Lenovo laptop calculator, number (1).

Field research procedures: -**Description of physical abilities tests:****First: the long jump from stability:** ⁽¹⁾

Objective of the test: To measure the explosive power of the legs.

Tools: measuring tape (metric), starting line of white powder.

Performance description: The tester takes a standby position at the edge of the first line so that the feet are together, and the tester bends the legs down and opens the arms aside from this position. When the signal is given, the tester begins the horizontal jump with maximum force to travel the largest possible distance.

Registration: The degree of the laboratory is the maximum distance reached by jumping forward in meters and its procedures. The laboratory is given three attempts and the best attempt is calculated.

Second: The test of bending and extending the knees in 20 seconds (for both sexes): ⁽²⁾

Purpose of the test: To measure the speed characteristic of the muscles that bend and extend the knees.

Tools : stopwatch.

Description of the test: From a standing position, bend and extend the knees completely in a time of 20 seconds, noting that no part of the body is dependent on anything.

Evaluation : The number of times in 20 seconds.

Repetition : The number of times in a time of 20 / s is a power indicator, the test is repeated, and the result is taken

Ability Indicator: The test is repeated and the best result is taken.

Third: The test of measuring the speed of the movements of the legs: ⁽³⁾

The objective of the test: - To measure the speed of the movements of the two legs.

Performance description:

Four cones are placed so that the distance between point (A) and each cone is (3 m), it is the distance determined by the experts as in Figure (6). The tester stands at point (A) in a position of readiness to perform any skill, and when he hears the start signal, he moves to the funnel (1), and by using side movements to touch the funnel with his hand and then return with the same movement to funnel No. (2) using the forward moves passing through point (A), then go back to the funnel (3) passing through point (A) to touch the cones with his hand, then to the funnel (4) through point (A) and then to the starting point (A), the recorder then stops the stopwatch and records the performance time.

Performance conditions:

When performing a lateral move (to the right or left), the player must maintain the form of the defensive move to suit the conditions of competition (crossing the step or crawling with the feet without intersection).

Registration: The tested player records the time from the start signal to the starting point, through touching the four cones, and records the time per second.

Description of the direct free kick test (scoring against a wall): ⁽⁴⁾

Purpose of the test: To measure the scoring accuracy of a direct free kick from over the wall.

Performance description:

The player stands near the balls placed in the ten places where (10) footballs are placed in different places outside the penalty area, and the distance between one ball and another is (7) meters, provided that the ball number (8,3) faces the goal and is located on the fair line for it, the remaining balls are away from them, and on both sides the above-mentioned

distance between one ball and the other and on two parallel lines, the first is 20 yards from the goal line, and the second line is 25 yards away, after placing the wall at a distance of (10) yards from each ball, the player scores in the areas marked in the test and according to their importance, one after the other, in sequence, the test must be taken from a position similar to a free kick.

That is, the player takes the time, concentration and the appropriate movement to kick, and the time between one kick and another is (60) seconds, i.e. the time of the test for each player is (10) minutes. Hitting any of the three targets on the designated side.

Registration:

The number of injuries that enter or touch from the inside the sides of the three goals identified on each side of the goal and with any of the feet, so that the scores of each of the ten balls are calculated as follows:

- (3) degrees when scoring in the field No. (3).
- (2) A score when scoring in the field No. (2).
- (1) A score when scoring in the field No. (1).
- (0) degrees in the rest of the other target areas.

- Scores are collected for each player for his 10 attempts and the degree and accuracy of the direct free kick.

Main experiment procedures:**Pre-test:**

The researchers conducted tribal tests on the research community for the two groups (control and experimental) for the study variables (physical abilities and the accuracy of direct free kick soccer scoring) on Monday (3/12/2020) and the tests were according to the following sequence:-

- **A test of the scoring accuracy of a direct free kick soccer.**
- **Physical abilities tests.**

Applying various exercises:

The researchers prepared and organized various exercises based on their personal experience, it was started to apply the appropriate exercises within the skill requirements on the experimental group, and (intensity, repetitions, appropriate rest periods) and the researchers legalized these exercises on a scientific basis, as well as the physical and skill ability of the research sample, the tools used and training methods through exploratory experiments, to help develop the physical abilities and the accuracy of scoring for the direct free kick, to achieve the purposes and objectives of the training process.

The details of the various exercises in the training curriculum are as follows:-

- 1- The total number of training units (24) units.
- 2- The number of weekly training units that included various exercises (3) units for a period of (8) weeks.
- 3- The duration of the various exercises in one training unit (40-45) minutes.
- 4- Training methods (high intensity and repetitive interval) were used in the training units when implementing the exercises.
- 5- Training days during the week are (Saturday, Monday, Wednesday).
- 6- The goal of the various exercises is to develop physical abilities (explosive ability, strength characterized by speed, motor speed).
- 7- The aim of the various exercises is to improve the player's postures while preparing and hitting the ball.
- 8- The goal of the various exercises is to develop the accuracy of the scoring skill for the direct free kick.
- 9- The researchers took into account the exchange of work between muscle groups.
- 10- Planning various formations of exercises during the daily and weekly training units (1-2).

Post-tests:

The researchers, with the help of the assistant work staff, conducted the post-tests of the research sample after completing the application of the various exercises, on (21/2/2018) and in the same sequence of the tribal tests, as the researchers took into account the same conditions in which the tribal tests were conducted in terms of the sequence of tests.

Statistical means:

- Mean.
- Std. Deviation.
- Pearson correlation coefficient.
- Test (t) for interconnected samples.
- Test (t) for independent samples.

Presentation, analysis and discussion of the results:

Presentation and discussion of the results of the pre and post- tests of the control and experimental groups for the variables under study.

Presenting the results of the tribal and post-tests of the control group for physical abilities and the direct free kick in football.

Table (1) shows the means, standard deviations, the calculated (t) value of the correlated samples, the level of test significance, and the significance of the difference for the pre and post-tests of the control group of abilities for physical abilities and direct soccer free kick.

Variable	Measuring unit	Pre-test		Post-test		T value	Sig level	Sig type
		Mean	Std. Deviation	Mean	Std. Deviation			
Explosive power	meter	2.22	0.421	2.37	0.91	6.547	0.000	Sig
speed power	several	39.6	2.143	43.14	1.254	3.124	0.002	Sig
Kinematic velocity	second	12.471	0.0574	11.258	0.0897	6.025	0.004	Sig
Football direct free kick	Degree	11.254	1.325	14.364	1.847	7.254	0.005	Sig

Presentation of the results of the tribal and remote tests of the experimental group for the physical abilities and the direct freedom in football.

Table (2) shows the arithmetic means, standard deviations, the calculated (t) value for the correlated samples, the level of test significance, and the significance of the difference for the pre and post-tests of the experimental group of abilities for physical abilities and a direct free kick in football.

Variable	Measuring unit	Pre-test		Post-test		T value	Sig level	Sig type
		Mean	Std. Deviation	Mean	Std. Deviation			
Explosive power	meter	2.215	0.514	2.44	0.514	14.365	0.000	Sig
speed power	several	39.5	3.504	44.358	2.154	9.325	0.003	Sig
Kinematic velocity	second	12.771	0.0654	10.254	0.0457	27.214	0.000	Sig
Football direct free kick	Degree	11.75	1.245	19.254	2.457	15247	0.000	Sig

Discussing the results of the pre and post tests for the control and experimental groups of physical abilities and the direct free kick football

The results presented in Tables (1) and (2) for the explosive ability test showed that there were significant differences between the pre and post tests for the control and experimental groups, and for the post tests, the researchers attribute that the reason for the moral difference of the members of the control group is due to the methods and methods of training that were used and applied by the trainer to the members of the control group, as the training gives results and improvement for the athlete, even if the components of the training load were not regularly codified due to the athlete's exposure to physical exertion, and adaptation to a certain level occurs during the training period, as for the difference for the members of the experimental group, the researchers attribute it to its use of the combined exercises that he prepared, as it was codified according to a scientific basis and in proportion to the principles of energy expenditure appropriate for this muscular work, which takes only a few seconds, in training the explosive ability of the muscles of the legs, the researchers mainly used various exercises using body weight, deep jumping, and the use of obstacles and boxes, as they had an impact on developing this trait, and this is what (Qasim Hassan) indicated, "The exercises that use great resistance are one of the appropriate means to develop the components of ability explosive" ⁽⁵⁾, The researchers also attribute the reason for these differences for the members of the experimental group to the quality of the various exercises in the training program that were applied by the members of this group, as it was focused on producing the maximum strength in the least possible time, and confirming the opinions of experts, no matter how different the sources of their scientific and practical cultures were. The training program leads to the development of achievement, provided that this method is prepared on a solid and organized scientific basis" ⁽⁶⁾, as well as the use of various exercises using the plyometric method, as it greatly helped to develop the explosive ability of the muscles of the legs by regulating the muscular work between contraction and relaxation of the working muscles, which helps in performing the movement easily and orderly.

Also, the results presented in Tables (1) and (2) for the test of the characteristic velocity strength of the leg muscles for the pre and post tests showed, so the results of their tests were significant in favor of the post test for members of the control and experimental groups, the researchers believe that the effectiveness of the exercises used by the trainer for the members of the control group had a clear impact on making this difference, this means that any physical work performed by the athlete has a positive and noticeable effect, but the difference lies in the size of this effect and its variation from one group to another and from one curriculum to another, and this is what must be emphasized during the development of training curricula, as it must be built and codified, each according to his specialization, in terms of working power systems, the way they work, and the desired benefit from them. As for the various exercises prepared by the researchers for the members of the experimental group, which are characterized by high intensity and continuous repetitions, they helped to make a moral difference in the strength of the speed characteristic of the muscles of the two legs, as football players need, during the performance of the various motor skills, rapid and repeated muscle contractions that serve the specialized activity, so the correlation of force with speed and the resulting force is distinguished by speed, and when this connection is at its highest intensity, whether it is strength or speed, it has an effect effective in the movement performance of the player, which helped researchers use various exercises in the training units, which was working on developing strength characterized by speed, such as exercises of barriers, stables and ground stairs with partridge exercises with height and distances, and in order to serve the development of strength distinguished by speed for the two legs, the researchers also attribute this difference to the selection of appropriate exercises and a vehicle similar to the cases of play, as these exercises permeated a kind of special strength in which body weight was used, as it was developed scientifically and appropriately with the level of the experimental group, which led to the development of the main muscles that serve the muscles of the legs, as well as the ability of the experimental group members to produce an appropriate force to perform the work performed during the various exercises, which were repeated through the training program, which was characterized by the rapid nature and similar to the different physical exercises for the muscles of the two legs, and this was confirmed by (Abu Al-Ala Ahmed) that the strength distinguished by speed is related to the degree of skill performance, the higher the higher The degree of skill performance, the level of coordination between fibers and muscles increased, and the dynamic distribution of motor performance improved ⁽⁷⁾.

It was also shown to us through the results of tables (1) and (2) that there are significant differences for the kinetic speed test in the pre and post tests for the members of the control and experimental groups, and in favor of the post tests, the researchers attribute the reason for the existence of the moral difference for the members of the control group due to the nature of the exercises that the trainer applied to the members of this group, as well as for the repetitions performed by the players during the training unit, as a high percentage of the exercises focused on developing the speed of the players' movements and their movement from one place to another as required by the nature of the game, and this helped to create moral differences among the members of the control group, as for the members of the experimental group, the researchers suggest the reason for its development as a result of the effect of the training curriculum, which was a mixture of physical exercises with skill exercises, especially, as it was inspired by the actual situations of the competition, in addition to that, the use of auxiliary tools, which the researchers see as having an effective effect in the development of the speed of the two legs movements of the members of the experimental group, because (the auxiliary means make the player able to address the shortcomings, especially those whose legs movements are slow and increase from the effectiveness of the training unit ⁽⁸⁾). Therefore, it is the duty of workers and specialists in the field of football to pay attention to the training tools and means that will raise the level of their players physically, kinetically and skillfully, thus, the researchers believe that the use of the leg movements that are characterized by speed will help the player to master the preparatory stage (the approximate run) to perform the motor skills more effectively.

The results of Tables (1) and (2) for the arithmetic mean values, standard deviations, and (t) values calculated in pre and post tests for the accuracy of the direct free kick in football have also shown, there are significant differences between the pre and post-tests in favor of the post tests in each of the experimental and control groups, the researchers believe that the reason for the development of accuracy for the members of the control group is due to the repetitions of the exercises prepared by the coach and performed by the players in the training units and the regularity in the training process, and the repetitions lead to the consolidation of the movement program among the players and expand his perceptions and concepts in order to understand the skill and its clarity, as the excessive repetition of any work will reduce the error rates and increase the percentage of mastery, as well as lead to the speed of withdrawing information from the memory, so the player is given many

attempts while starting training, as for the members of the experimental group that applied the various exercises, the reason for the moral difference was the opinion of the researchers due to the type of training that focused on skill performance similar to playing and competition situations and its accurate implementation, which created a state of parity between the training load and the development of the physical and movement capabilities of the player, which was reflected in the level of skill performance, in addition to the state of repetition and focus on correcting the errors associated with performance, it acquired the characteristic of accuracy in the skillful performance of the direct free kick through estimating the distance, which led to the development of this skill, successful scoring, which depends on the presence of two legs factors, are speed and accuracy. Rapid scoring and high accuracy in hitting the target will surprise the opponent and prevent him from acting to prevent scoring, and that a large percentage of the exercises are performed with tools that make the player fall under the influence of competition, such as the artificial wall (blocking wall), achieving the greatest possible degree of accuracy in good scoring in training and competition requires the football player to have a high level of physical, motor and skill performance to be able to reach the goal and achieve the required level in competitions, as well as the appropriate number of repetitions that accompanied the training units and careful selection of exercises taking into account their suitability to the research sample and their capabilities, taking into account the repetition of the exercises on an ongoing basis as well as the gradation in the level of difficulty, which ensures performance by everyone, this is what was stated by (Ibrahim, 1988) when he believes that "choosing a coach for difficult exercises will increase the experience of some players" ⁽⁹⁾.

Presentation and discussion of the results of the tests (post-test) for the control and experimental groups for the variables under study.

Table (3) shows the value (t) calculated for independent samples, the level of test significance, and the significance of the differences between the results of the (post. post) test for the control and experimental groups of physical abilities and kick free live football.

Variable	Measuring unit	Pre-test		Post-test		T value	Sig level	Sig type
		Mean	Std. Deviation	Mean	Std. Deviation			
Explosive power	Meter	2.37	0.91	2.44	0.514	10.254	0.001	Sig
speed power	Several	43.14	1.254	44.358	2.154	12.142	0.000	Sig
Kinematic velocity	Second	11.258	0.0897	10.254	0.0457	8.025	00.02	Sig
Football direct free kick	Degree	14.364	1.847	19.254	2.457	6.0215	0.001	Sig

The results of the tests (post . post) of the control and experimental groups of physical and kinetic abilities and the direct free kick in football.

Through the results that appeared in Table (3), which indicate that there are significant differences between the control and experimental groups in the post tests to test the explosive ability of the muscles of the legs and in favor of the experimental group, the researchers attribute the reason for these differences to the perseverance of the experimental group members in the various exercises they applied, which were going towards the maximum work and similar to the cases of play, as the focus was on that the exercises be of high intensity in the repetitive training method, which contributed mainly to raising the efficiency of the players and this is what he worked on Researchers while legalizing various exercises, the researchers attribute the development of the experimental group members also to the regularity and repetition of the exercises when used, as it clearly affected the development of the explosive ability of the trained muscle groups, this development in muscular ability occurred as a result of the development of the basic strength of the muscle, and this increase in strength and speed is imposed by the nature of performing various exercises in which light resistances with body weight or weights are used, and at a very high speed of performance, this is what (Edmund) indicated that "training, using light weights that is characterized by high ability, affects different parts of the strength and speed curves, while traditional training with heavy weights increases the maximum strength of the players, and training that takes place at high speed leads to the speed of skill performance to much more than traditional heavy weight training" ⁽¹⁰⁾.

From this, the researchers conclude that the various exercises that were prepared and applied to the members of the experimental group, most of which were working with the phosphate energy system, had a great impact in developing the explosive ability, as it is one of the important abilities in the game of football because it shares most of the motor skills and thus has Its effect is effective in the success of those motor skills, and it may be the decisive action in winning the game.

The results in Table (3) of the speed-distinguishing strength test for the muscles of the legs showed that there was a significant difference in the post tests between the control and experimental groups and in favor of the experimental group, the researchers attributed the reason for this to the various exercises that were applied by the members of the experimental group. The use of these exercises helped to develop the strength characteristic of speed by shortening the duration of muscle contraction and thus increasing the resulting muscle strength, which leads to a higher rate of contraction, also, the greater the coordination between the muscles participating in the motor performance on the one hand and the corresponding muscles on the other hand, the greater the production of muscle strength and the faster the stimulation of the muscle fibers to perform a rapid muscle contraction ⁽¹¹⁾ :-

1. Increasing the rates of the resistors used with a slight decrease in the speed of performance.
2. Increasing the average used speeds with a slight reduction of the resistances.
3. Linking the two previous methods

The researchers agree with him in that by organizing the exercises he prepared in a manner that is commensurate with the nature of performance in the specialized activity, also, the characteristics of the athlete will lead to high results in the development of strength characterized by speed, and this is what researchers used in the implementation of exercises to develop the speed characteristic of the muscles of the legs, in the game of football, the players, while performing the various motor skills, need rapid and frequent muscle contractions that serve their specialized activity, so the correlation of the element of strength with speed and the resulting strength is characterized by speed, and when this connection is at its highest intensity, whether it is strength or speed, it has an effective effect on the player's motor performance, in addition to the use of various training methods, such as the method of repetitive and interval training in high intensity, and the standardization of the components of the training load in a scientific, systematic way that has effectively contributed to the development of this physical ability level by improving the work of the working nerves and muscles, the researchers also believe that the reason for the lack of development of the speed characteristic of the muscles of the legs of the members of the control group compared to the experimental group is due to the lack of organization and coordination of the components of the training load for this ability in a scientifically correct manner that is consistent with the energy system on which this ability operates in terms of the duration of the stimulus and its activation of the enzymes responsible for releasing Big and fast energy for a small amount of time, as well as not following training methods and methods that help to develop this ability in the manner in which the members of the experimental group developed.

The results presented in Table (3) to test the motor speed of the two legs showed that there was a significant difference in the post tests between the control and experimental groups and in favor of the experimental group, the researchers consider this to the various exercises, which were prepared according to correct scientific bases of a variable nature, which were similar to the cases of play, as they are very similar to the actual competitive conditions of the game using the (plyometric) method, as it "increases the speed of motor performance, meaning that the strength gained from this type of training leads to better movement performance in the practicing sports activity by increasing the ability of the muscles to contract at a faster and more explosive rate ..." ⁽¹²⁾ , the exercises that the members of the experimental group worked in in a controlled manner added to the training load in a gradual manner, which subsequently led to the development of the muscular capacity of the working muscle groups. Thus, the movements of the two men became faster, especially at the moment of the start of the movement, as "the plyometric training with greater burdens works to develop strength In general, the moment of the start of the movement and the explosive force, the moment of the return of this force and the result of the sudden change" ⁽¹³⁾ , as the motor speed of the two legs depends on movements with a momentary reaction, and that the prepared exercises contributed greatly to the process of linking the speed of movement and the skill of the free kick, which is one of the requirements for the success of performing this skill quickly and precisely, as well as the principle of diversification and change that the researchers used in addition to continuous repetitions with Taking into account the components of the training load (intensity, size, comfort) in a scientific way contributed effectively to the development of this ability, which depends on rapid and sudden movements, this was confirmed by (Magill) when he said, "The diversification of exercise experiences and their organization and diversity in movement will increase the experience of the players and increase the player's ability to perform the skill better" ⁽¹⁴⁾ .

Through the results presented in Table (3) for the tests of motor abilities (kinetic flexibility, motor balance, motor accuracy), it turns out that there are significant differences in the post tests between the control and experimental groups and in favor of the experimental group, and the researchers attribute this clear difference to the members of the experimental group. At the expense of the control group members to use a combination of physical exercises and skill exercises, in addition to that, work on correcting the motor paths of skillful performance by working according to the bio kinetic variables, as the more the movement performed by the athlete is consistent with the correct path for it, the more the goal of performance is achieved, in addition to the various exercises that had a great role in generating additional strength for the working muscles. The acceleration of the movement of parts of the body, which led to a rise in the physical and kinetic aspects, and this is what (Essam Abdel-Khaleq) indicated, "The motor performance of the skill depends on the physical and motor capabilities of the person" ⁽¹⁵⁾.

The researchers believe that the relationship between the motor abilities and the technical performance of the free kick skill represents the degree of difficulty that the player can exert in an exciting direction or certain stimuli. directly related to technical performance, as well as taking into account researchers when preparing various exercises relying on physical abilities and motor abilities according to the practiced sports activity (football), with great emphasis on that these exercises work on developing the direct free kick by working according to biokinetic principles, as the researchers focused, through various exercises, on developing joint movement and increasing their degree of flexibility, as well as the elasticity of the muscles, tendons and ligaments surrounding them, according to what the nature of the game requires, the researchers also relied on giving exercises that maintain the level of flexibility that the player has reached and the degree of balance and motor compatibility because neglecting them leads to their gradual loss, which will negatively affect the level of skill performance in general, and this requires that the planning of training curricula be comprehensive for all physical and motor abilities and their overlap with each other, also, the performance of movements similar to the type of specialized activity (football) contributed to the development of intertwined kinetic abilities in performance, the most important of which is the use of spinal flexibility exercises and kinetic compatibility such as (ring exercises, stairs, cones, etc.), as well as exercises running between the poles, jumping and compatibility exercises.

The results presented in Table (3) to test the accuracy of the direct free kick showed that there was a significant difference in the post tests between the control and experimental groups and in favor of the experimental group. Performing skill tracks, as well as mixing in various exercises in terms of motor and skill performance, As it worked on the development of physical and motor abilities, and this development was reflected on the element of accuracy for the members of the experimental group, as the motor performance of the skill depends on the physical and motor abilities, and (Amer Rashid) mentions that accuracy is "a motor characteristic of a skillful performance implemented by any limb or part of the body. And if the performance is implemented with a high degree of compatibility, it achieves accuracy in hitting the target or any specific location, in response to an external or internal stimulus" ⁽¹⁶⁾, while (Saad Mohsen) defines it as the efficiency in hitting the target, whether the part of the body is facing towards the competitor's body or towards its arena convertible, The researchers also see that the development of the player's motor abilities increases the performance's behavior and vice versa during the implementation of the skill with the link to accuracy, which is an important factor for observing the player's level, which also has an effective role in linking to the mental and physical aspects, as the player who has good motor compatibility with complete control over the stimuli during performance increases the performance outcomes and this is what the researchers sought through the important link on the state of motor and skill compatibility through which we can diagnose and perform the art of skill performance correctly and accurately. In addition, most of the exercises were prepared according to the principle of bio kinematics in terms of angles, speed and distance, and thus collectively contributed to obtaining the precise motor path for performing the direct free kick.

Conclusions and recommendations:

Conclusions:

- The various exercises contributed to the development of physical abilities, which are (explosive ability, strength characterized by speed, motor speed of the legs).
- The diversification and planning followed in preparing the various exercises led to a noticeable improvement in the scoring accuracy of the direct free kick in football.

- The development of physical abilities combined directly contributed to the development of the accuracy of the direct free kick skill in football.

Recommendations:

- Interest in using various exercises according to scientific training bases to raise the physical and kinetic efficiency of young football players.
- The adoption of various exercises in the study within the components of the training load (intensity, size, comfort) when training physical abilities for their contribution to the development of the skillful performance of the players.
- The necessity of benefiting from the results of this study in similar research when training and teaching.
- Conducting similar research and studies for other football skills

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