

The Effect of Compound Exercises to Develop the Skill of Scoring in Futsal¹

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ABSTRACT

The aim of the research is to prepare compound exercises to develop the scoring skill of futsal players, to know the effect of compound exercises used to develop the scoring skill of futsal players, the researchers used the experimental approach with two equal groups, the control and experimental, to suit the nature of the problem and achieve the objectives of the research, and the researchers chose a sample for his research. The number of (12) players from the intentional community, who are officially registered in the lists of the Wasit breeding team for the preparatory stage of football for the season 2022-23, with the exclusion of goalkeepers from the tests, as the players were divided into two groups: the experimental group, which numbered (6) players, and the control group, which numbered (6) players. Where the physical tests were conducted, including the vertical jump test from stability (Sargent), the partridge test for the maximum distance in (10) seconds, and the skill tests are the scoring test on the target divided into degrees from a distance of (10) m. The researchers reached the following results. The researcher used it to a positive effect of the significant differences in the physical abilities of futsal football (explosive power, and the power characteristic of speed), and this is consistent with the needs of futsal players for these abilities during the match, The compound exercises that the researcher used led to a positive effect on the scoring skill in futsal football. The use of compound exercises had a clear effect on the development of explosive power and the power characteristic of speed for futsal football players in favor of the experimental group.

Keywords: *compound exercises, explosive power and futsal.*

INTRODUCTION

The development of global athletic achievement in recent decades did not come randomly, but rather was an inevitable result of the use of scientific research methods and proper planning and implementation of this planning, by employing the foundations and principles of modern science in physical education such as the science of training, physiology, statistics, biomechanics, sociology, sports medicine and others.

The futsal game is one of the games with high physical requirements, which requires an integrated preparation so that the player can bear the burdens he faces during the match. From the physical and skill capabilities of the players and the player's occupancy of more than one position in the team, and despite the player's endurance of this high effort, he must maintain his physical sufficiency throughout the match time, and here the importance of compound exercises appears, as one of the factors affecting the level of performance and the result of futsal players during The two halves of the match, the player with sub-standard physical capabilities leads to early fatigue, and the training methods and directions for football players differed for the connections, especially the scoring activities, and the coaches and researchers began looking for the best that could serve the training process and increase the development of numbers, so the researchers turned to preparing complex and influential exercises in developing Scoring aspects to serve futsal players in order to raise the level mathematical achievement.

In light of the foregoing, the importance of the research lies in the preparation of compound exercises to develop the skill of scoring in football for the halls in a scientific and well-studied manner.

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RESEARCH PROBLEM

The futsal game is one of the exciting games, where the futsal player needs high-level physical capabilities and skills to bear the burden that falls on him during the performance in the match, as the researchers noticed that he is interested in sports affairs and also football players for futsal and open arenas and physical education teachers and through his follow-up Iraqi educational championships and school sports championships. Notice that there is a lack of interest in curricula that concern the physical and skillful side, especially scoring. There is also a lack of previous studies concerned with practical training and performance affairs for futsal players in Iraq, as most clubs suffer from a clear decrease in the level of performance for many reasons, including Lack of focus on compound exercises, especially in the last third of the match, as they appear early and obvious fatigue. We infer this through random play, scattering balls, many cut tackles, slow and offensive activities, and lack and loss of concentration during scoring. Therefore, the researchers sought to study this problem and develop appropriate solutions for it. During the preparation of compound exercises (physical - skill) for futsal players,

The aim of developing some special physical capabilities, which are (strength distinguished by speed, endurance of speed) and the basic skill is (scoring).

Research Aims

- 1 -Preparing compound exercises to develop the scoring skill of futsal players.
- 2- Knowing the effect of compound exercises used to develop the scoring skill of futsal players.

Hypothesis

1. There are statistically significant differences for the research variables between the pretests of the experimental and control groups, in favor of the posttests.
2. There are statistically significant differences for the research variables between the post-tests of the control and experimental groups, in favor of the experimental group.

Research Methodology:

The researchers used the experimental approach with two equal groups, the control and the experimental, in order to suit the nature of the problem and achieve the objectives of the research, and because the experimental approach "is an attempt to control all the basic factors of change or the dependent variables in the experiment, except for one factor that controls the researchers and changes it in a certain way with the aim of determining and measuring its impact on the variable." or dependent variables. (59:2)

The Research Sample:

In order to achieve the objectives of the research, the selection of the sample must be appropriate to the nature of the problem, as the sample is considered "the part that represents the research community or the model on which the researchers conduct their entire work".

The research community, which represents the players of Wasit Education for the preparatory stage for futsal, was chosen, as the intentional selection of the sample is usually used when this sample represents the original community, and this gives results that are closest to the results that can be reached from the whole community. The number of (12) players from the intentional community, who are officially registered in the lists of the Wasit breeding team for the preparatory stage of football for the season 2022-23, with the exclusion of goalkeepers from the tests, as the players were divided into two groups, the experimental group, which numbered (6) players, and the control group, which numbered (6). Players.

Equipment, tools and means used in the research:

- Arabic, Arabized and foreign sources.
- Personal interviews.
- Observation and experimentation.
- Tests and measurements.
- Assistant team.
- Form for collecting and unloading test results.
- Exploratory experience.
- International Information Network (Internet).

- 6 Stopwatches.
- Size 4 soccer balls
- Personal computer (laptop) type (Dell).
- CD discs
- Whistle
- Animated boxes
- Football stadium for halls
- Adhesive tape
- 13 cones number.
- 10 vertical Cones number.
- Camera
- A goal measuring (75 x 100) cm
- Barriers.

Determination of physical capabilities, basic and functional skills and selection of tests:

After reviewing many sources and references and as a result of the research and review of some of the available sources that are appropriate to the subject of the study, the researchers identified some physical and functional capabilities and basic skills because the researchers believe that they are the most effective and in line with this game, which are the physical capabilities (strength distinguished by speed, explosive power), And the skill of (scoring) and to complete the procedures and to achieve the objectives of the research, there must be standardized scientific tests to measure the variables related to the phenomenon to be measured in which the conditions are met and make them real and honest measures in measuring what is required to be measured, because the test is "a set of exercises given to the individual with the aim of identifying his capabilities, willingness or competence .

Tests:

Explosive Force Test (304:3)

- Test name: Vertical jump stability test (Sargent).
- The purpose of the test: Measuring the explosive strength of the two legs.
- Tools:

- 1 -A blackboard fixed to a wall so that its lower edge is (150 cm) off the ground, provided that it is then inscribed from (151 cm) to (400 cm).
- 2 -Colored whiteboard pen.

-Performance Description: The player holds the pen, then stands so that his arm holding the pen is next to the board, then raises his arm to its full extent to make a mark with the pen on the board, and records the number that the mark was placed in front of him. Swinging it forward high with the knees extending to the vertical jump to the maximum distance it can reach to make another mark and the arm on its full extension, recording the number that placed the second mark in front of it.

-Performance conditions:

- When performing the first sign, one or both heels must not be lifted from the ground, and the distinguishing arm must not be raised above the level of the other shoulder while making the sign, as the shoulders must be on one straight line.
- The tester has the right to two swings (if he so desires) when preparing for the jump.

Registration method:

- Each laboratory has two attempts to score the best one.
- The distance between the first and second marks reflects the explosive power of the two legs, measured in cm.

A test of the speed-distinguishing strength of the two legs (154:4).

- Test name: Partridge test for the maximum distance in (10) seconds.
- The aim of the test: to measure the speed-specific strength of the two legs.
- Tools used: stopwatch, whistle, tape measure and registration form.
- Performance method: The player stands behind a specific mark on the ground, and after hearing the whistle, the player performs a partridge on one leg, choosing the player, in a straight line, and as quickly as possible.

-Recording: The distance traveled by the player during the period of (10) seconds is recorded, and only one attempt is given to the tester.

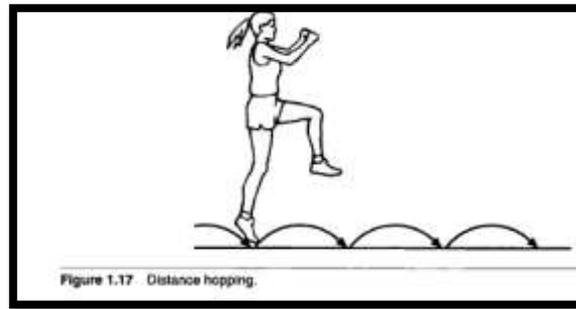


Fig (1): speed-distinguishing strength test

Scoring test

- Test name: The shooting test on the target divided into degrees from a distance of (10) m.
- The aim of the test: Measuring the accuracy of scoring.
- Tools used: a tape measure, a soccer ball for futsal, number (3), a goal divided by ropes or adhesive tape into (9) sections, a sign, a registration form, and a whistle.
- Performance method: The player stands at a distance of (10 m) from the target, and when the signal is given, it shoots.
- Registration: The laboratory is given (3) attempts, as the scores are recorded according to the location.

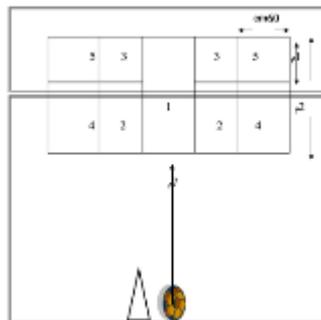


Fig (1): Scoring test

Pre-tests:

The researchers proceeded to conduct the pre-tests for a research sample in the closed room, and all the sample members attended the pre-tests, and the tests were conducted. In it, physical tests were conducted (strength characterized by speed, explosive force), and a sufficient recovery period was given between one test and another, and equivalence was calculated between the two groups in restricted abilities, and equivalence was calculated between the two groups in the functional variables under study, in addition to calculating the equivalence between the control and experimental groups. In conducting skill tests, which is (scoring), and the researchers worked to establish the conditions related to the tests in terms of time, place, and the tools used in order to work as much as possible to create similar conditions when conducting post-tests.

The main experiment (application of compound exercises)

The researchers prepared compound exercises based on the scientific sources of futsal, as well as benefiting from the opinions of some experts and specialists in the field of sports training science, soccer and futsal coaches. The researchers used compound exercises (physical-skill) that raise the level of abilities. The physical, functional and skill of the futsal players and the possibility of developing capabilities and the possibility of raising the level of their capabilities and achieving a better level of performance, the researchers rewrote the technical procedures that were used and that were followed by the coach and his assistants and implemented those complex exercises within the experimental group, while the control group left her the freedom to work according to the prepared program. By the trainer, that is, it is the traditional exercises within the practical trainer curriculum, and the role of the researchers was only supervision, follow-up, and implementation.

Steps to implement the training modules:

The training units were applied to the experimental group represented by (6) players from the Wasit Breeding Club for the preparatory stage for futsal, while the control group represented by (6) players from the same community was applying the vocabulary of the training curriculum prepared by the team coach:

- The application of the curriculum continued for (6) weeks at a rate of (21) training units, at the rate of (3) training units per week, for the days (Saturday, Monday, and Wednesday), which are the team training dates, and with the same number of training units, the control group implemented the training units.
- Compound exercises were implemented in the main section of the training unit for a period of (30-40) minutes.
- The researchers relied on adjusting the components of the training load (volume, intensity, and comfort) according to the level and ability of the players, relying on some scientific sources and personal interviews in the field of sports training as well as the exploratory experience. The role of the researchers was to supervise the main part of the training unit, as the implementation of compound exercises.
- The training intensity was calculated according to the ability of the players and their heart rate.
- The method used in applying the training units is the high interval training method and the repetitive training method.
- The intensity of the training units amounted to (85-100%). In the power characteristic of speed and explosive power

Post-tests:

The post-tests were conducted for the research sample, after the completion of the duration of applying the training curriculum, which took (6) weeks, and the researchers were keen to provide the same conditions during which the pre-tests were conducted and with the same procedures previously described.

Statistical means:

The statistical system (SPSS) was used.

Table 1

Groups	Tests	Mean	Std	Skewness	t
Control Group	Explosive Force	4.32	1.941	0.391	7.533
	speed-distinguishing strength	3.42	1.632	0.211	5.630
	Scoring	4.90	1.748	0.450	8.504
Experimental Group	Explosive Force	6.21	1.462	0.742	13.601
	speed-distinguishing strength	5.14	1.513	0.805	11.432
	Scoring	5.99	1.597	0.933	14.990

Through the aforementioned, the researchers attribute the reason for this to the fact that the compound exercises used have the ability to provide diversity in the development of special physical capabilities depending on the intensity of the exercises and according to the times specified for them in the exercises used, as (Al-Rabadi, 2001) indicates in that that “diversity in Sports performance is one of the basic factors for the process of balance in physical integration, and it works to increase the desire for training.” All of them, as the ability improves if the training also includes exercises that develop other physical capabilities at the same time, and vice versa, focusing on developing one physical ability during training does not bring the required quick effect, in addition to the fact that the exercises had characteristics, advantages and considerations. For the scientific foundations that state that “the processes of progress in the level of the elements of physical fitness take place as a result of the correct exchange between work and rest, as the load that falls on the shoulders of the individual leads to a temporary drop in the physical The functional capacity of the internal organs of the body, and during periods of rest, the body produces an amount of energy greater than that which it consumes during exertion, meaning that the energy that is present in the body after the recovery period is greater than the energy that was present in the body before the start of the exertion (63:6) Therefore, attention must be paid to the components of the load, especially work and rest, because they constitute two basic bases for an integrated unit, and the researchers believe that careful handling of the components of the training load in a practical and thoughtful manner led to the development of explosive power, endurance of speed, and strength characteristic of speed for the muscles of the two legs. It is regulated in the periods of load and rest in order to try to reach the athlete to the required level” (77:7), and this is consistent with what was stated by (James, 1989) that “the method used enables the coach to control the intensity of exercises and rest between one repetition and another, one training series and another, (53 : 8), and this is identical to what the researchers carried out on the experimental group, and accordingly, “organized training on exercises adapts the members and increases their ability to continue performing for a longer period with greater strength and intensity of load (201:9), and that is through “harmony in work between muscles.” The contracted and the extensor and the complete harmony between the working muscles and those involved

in the performance of the method led to an increase in their speed and a reduction in the performance time. higher" (137:10), and (Talha Hosam El-Din et al., 1997) quoting Poliknin (1988) indicated the need to diversify training by diversifying loading methods, and this could be done by changing the number of repetitions, the number of groups, or the amount of intensity loaded, or the speed of performing the exercise, or a change in the rest periods (52:11), and this is what the researchers relied on in applying the compound exercises to the experimental group, as well as using the principle of gradualness in increasing the training intensity, which led to adaptation and preparation for new loads, and continuing to change The intensity used maintains the acquired adaptations.

RESULTS

- 1- The compound exercises used by the researchers led to a positive effect of the significant differences in the physical abilities of futsal football (explosive power, and the power characteristic of speed), and this is consistent with the needs of futsal players for these abilities during the match.
- 2- The compound exercises that the researchers used led to a positive effect on the scoring skill in futsal football.
- 3- The use of compound exercises had a clear impact on the development of explosive power and the power characteristic of speed for futsal players, in favor of the experimental group.

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Conflict of Interest: None

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