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The Effect of Skill Exercises According To the Properties of the (Strength-Time) Curve in the Development of Scoring Performance for Soccer Players Ages (13-14) Years

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Abstract

The use of modern scientific theories of science related to the sports side has had a profound impact on the development of the sports level in all events and sports where many changes and adjustments have been made to various training methods to ensure positive developments in the direction of training requirements and physical, skill and planning competitions. One of the main duties of training is to reach the athlete up Level and that the difference games are one of the most famous games in the world, they also need a lot of this development, although they have made great efforts in order to reach advanced positions in the championships, and accordingly, preparing teams requires keeping up with this development and modern scientific progress, so it has become associated with many sciences others include training science, learning, physiology, biomechanics, and sports psychology.

Keywords: Skill exercises, Curve, Strength, Time, Educational Units

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Introduction

Research Importance

The main goal of training young people is preparing them and preparing them to improve and develop their level according to the characteristics of the Sunni stage (13-14 years), and to develop and develop their own capabilities that distinguish them from others, whether physical, biological and psychological, that the importance of exercises lies in the participation of the largest possible number of muscles with improving skill and gaining the connection of the parts of the movement and the most important An advantage for special exercises is to expand the player's perceptual kinesthetic perception, especially at this stage of life that requires the installation of the kinetic program, especially since those exercises have been prepared according to the properties of the curve (strength, time) as the control of the force amounts greatly contributes to guiding the skill according to its proper kinematic path through the foregoing, the importance of research lies in the fact that the exercises are built according to correct and sound scientific foundations within the physical and mental capabilities of football players ages (13-14) that have a great impact in accelerating the learning process for sporting skills, including the accuracy of the scoring of stability, which is one of the important skills that constitute A milestone in the outcome of the match and this is what the researcher seeks in his research, which contributes to reaching the best technical level for this age group and putting these exercises in front of train the trainers to improve this skill.

Research problem

Through the researcher's follow-up to many educational units at the Gifted Champion Center in Al-Muthanna Governorate, he noticed a weakness in the accuracy of the scoring skill from consistency between players because the

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scientific method was not used in preparing exercises and their absence. These exercises are among the mechanical variables that give the player an opportunity to control the dynamic path of the scoring skill from perseverance, by controlling the amount of strength that the player can use during the performance of the skill during a certain period of time, which prompted the researcher to develop special exercises according to the properties of the curve (strength and time) to increase the level of player performance to obtain better positive results.

Research Objectives

The current research aims to identify the impact of skillful exercises for scoring, prepared according to the (strength-time) curve in developing the scoring performance of football players who are (13, 14) years old, belonging to the talented champion center in the province of Muthanna.

Hypotheses In light of the research goal, the researcher assumes:

First - Hypotheses related to scoring performance:

1. There are real (functional) differences between the Alexan group before and after controlling the scoring performance of football players between the ages of (13, 14) years, belonging to the talented championship in the state of Al-Muthanna in the province of Al-Muthanna, and in favor of telemetry.
2. There are real (functional) differences between the Alexan group before and after the experience in performing the scoring skill for football players between the ages of (13, 14) years, belonging to the talented championship in the state of Al-Muthanna in the province of Al-Muthanna. Telemetry.
3. There are real (significant) differences in measuring the dimensions between the control and the experimental groups in performing the scoring skill for football players between the ages of (13, 14) years, and they belong to the talented mt CZ champion in Al-Muthanna Province, and for the benefit of the experimental group..

Second - Hypotheses related to the accuracy of scoring:

1. There are real (functional) differences between the Al-Qusan group before and after controlling the scoring accuracy for football players between the ages of 13 and 14 years of age, a talented Croatian champion in Al-Muthanna province. And in favor of telemetry.
2. There are real (functional) differences between Alexan before and after the experimental group in the accuracy of the scoring for footballers between the ages of 13 and 14 years, and they belong to the talented MT champion in the province of Al Muthanna, and in favor of telemetry.
3. There are real (moral) differences in the dimensional measurement between control and experimental groups in the accuracy of scoring for football players between the ages of (13, 14) years belonging to the talented Czech championship in Al-Muthanna. Governorate. Experimental group.

Research Areas:

1. The human sphere: Football players who are 13 and 14 years old and belong to the talented champion center in Al-Muthanna Governorate.
2. Time domain: From (20/5/2019) to (23/10/2019).
3. Spatial domain: The football field of the Samawah Youth Forum - Muthanna Governorate.

Similar Studies

Research methodology

The problem is the nature of the study required that defines the steps to be followed and the way to achieve specific goals. Where is the nature of the current experimental research problem, so the researcher used the experimental approach to an appropriate nature of the current research problem and its goals?

Experimental Design : The researcher has approved the design of the control group with the pre-post test, an experimental design for the current research .Scheme 1 illustrates this design

Comparisons	Variable (dependent)		Independent variable (experimental	Groups
	Test (after me)	Test (before me)		

		the test	Variables	the test	Variables	treatment)	
Between the two groups On the test (post)	Between the one group in the test (pre-post)	Scoring accuracy test	Perform the scoring skill	Scoring accuracy test	Perform the scoring skill	Skill exercises	Experimental group
Between the two groups On the test (post)	Between the one group in the test (pre-post)	Scoring accuracy test	Perform the scoring skill	Scoring accuracy test	Perform the scoring skill	There is no experimental treatment	Control group

Planner (1) demonstrates the experimental design of the research

Research tools

The nature of the assumptions is the one that controls the researcher's choice of his research tools to solve the problem and achieve the assumptions .Accordingly, the researcher used the following research tools :

Research Sample

Community statistic representation of current discussion by football players between the ages of (13, 14) years belonging to the talented Czechoslovak champion in Al Muthanna Province, with a total of 30 players, and 20 players drawn from the research sample, and by (10) players each Pull the sample by stratified and even random method. The sample was divided into two groups (control and experimental) as follows:

- ✓ Control group: It consists of (10) players, with (5) players (13) years old and (5) players (14) years old.
- ✓ Experimental group: It consists of (10) players, with (5) players (13) years old and (5) players (14) years old.

The researcher also withdrew a sample of (8) players from the research sample, to represent the exploratory study sample by (4) players from each group, and by (players) of each age .Table (1) shows that.

Table (1) the size of the research samples according to the purpose of using them

Total	Sample pilot study		Total	The research sample		the total number	Ages (year)
	Experimental group	Control group		Experimental group	Control group		
4	2	2	10	5	5	16	13
4	2	2	10	5	5	14	14
8	4	4	20	10	10	30	Total

Methods of data collection

The researchers used the tests (scoring accuracy of stability on a divided goal) as a basic means of data collection, and the following is the description of the test:

- Test name: Accuracy of scoring towards a divided goal.
- Test purpose: to measure scoring accuracy.

- Procedures: (6) soccer balls are placed on a line from the penalty area (16) meters from the goal, as shown in Figure (1) the distance between one ball and another (one) meters, the player stands behind the ball no. (1) And when the starting signal is given to him He scores towards the areas marked in the test, according to their importance and difficulty, and in a sequence from the first ball to the sixth ball.

- Registration: The test score is calculated as follows:

  - ✓ A player (4) is awarded a score if the goal (4) is hit.
  - ✓ The player is awarded (3) scores if the goal (3) is hit.
  - ✓ Player (2) is awarded scores if the goal (2) is hit.
  - ✓ Player (1) is awarded scores if the goal (1) is hit.
  - ✓ The player is not given any result if none of the targets are hit.
  - ✓ The minimum score that a player gets on the test (0)
  - ✓ The highest score a player gets in the test (24)

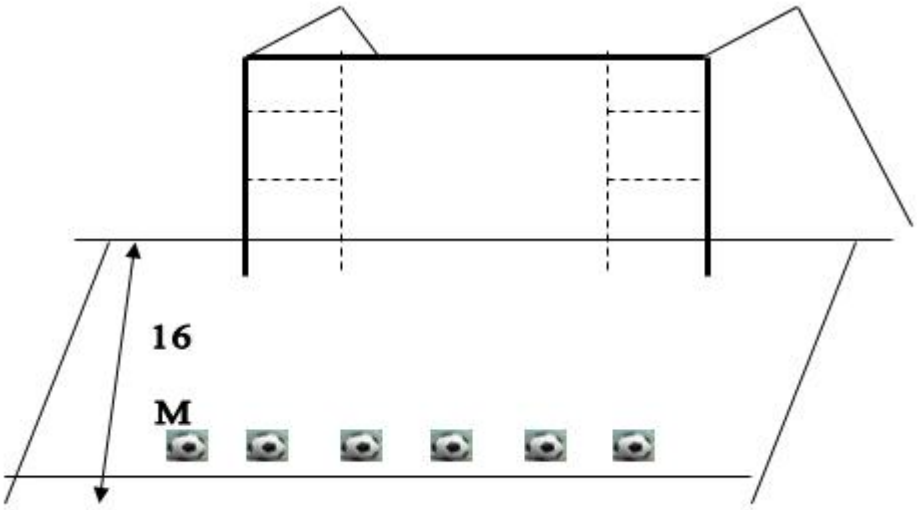

Figure (1) Demonstration test scores towards a divided goal

Devices and tools

The researcher used the following devices and tools:

1. Data collection and disaggregation form
2. Electronic calculator
3. Stopwatch
4. Pens and pencils
5. People
6. footballs
7. Moving targets
8. Small goals
9. Yalata train
10. Whistle

Field research procedures

The researcher followed the following steps to achieve the research objectives:

Determination of the test concerned with measuring the scoring accuracy of football:

The researcher drew the limits of his studies with the skill index: (performance of scoring skill) In order to determine the test that is concerned with measuring these indicators, he conducted a survey of the relevant scientific sources and references, which resulted in the nomination of one test, under objective conditions, in the forefront of which [1] [2]:

1. The test is concerned with measuring only one skill component (scoring skill)
2. It has the elements of a good test in terms of its educational and scientific foundations.
3. That it meets the requirements of its application in terms of: (ease of application, that it does not take a long time to implement and the ease of calculating its grades ... etc)
4. Its suitability to measure the (skill) component under study.

The Survey Study

The pilot experiment was conducted during the period from (2019/06/20) to(2019/06/25).

On a sample of (8) players, to achieve several purposes, including :

1. The validity of the methods used when applying the test .
2. Clarity of test instructions and understanding of the contexts applied by players.
3. Identify difficulties and obstacles, if any.
4. Know the time taken to perform the test.
5. The availability of the required capabilities in terms of suitability of the specified location for the test, in addition to the availability of devices and tools appropriate for the test.
6. The adequacy of the assistants and their proper training.
7. The extent of motivation and good response of the players when applying the test.
8. Recording the test results in a form prepared in a way that ensures the accuracy of the data and the ease of its classification and tabulation.

The results of this experiment resulted in achieving all the above-mentioned objectives.

Assessment of scoring skill performance:

The current research requires measuring the performance of the recording skill, and this command requires calculating the scores of the research sample when performing this skill using an objective evaluation tool (performance evaluation model in order to provide many forms of evaluation, the researcher decided to adopt one of these models, and after surveying the sources and references, he was chosen on The model prepared by (Hussam Kazem Jawad) (3) which was based on the hypothetical construction of the skill, was evaluated (10 grades divided according to the skill of the three sections as follows:

- The preparatory section: (3) degrees are awarded.
- The main department: awarded (5) degrees.
- The final section: (2) degrees.

In order to verify the validity of the model in the evaluation and its clarity with the arbitrators and the difficulty and ease of assessing the performance of players through this model, the researcher applied it to the sample of the exploratory experiment. After photographing the performance of the sample, using a video camera, and transferring it to a CD (CD (submitted to the arbitrators) [*]), record its results in the evaluation form.

Scientific foundations of no form:

First - Verify the results of the evaluation form

Use the researcher method (Luch) ([4]) to calculate the validity of the arbitrators, by presenting the form to a group of specialists in testing and measurement and number (5) for the purpose of knowing their opinions about the extent of my validity in measuring (performance skill) in the research sample, where he obtained Expert approval and rates (100%), where the honesty score is (1,000), which is greater than (0.62), which indicates the validity of the results of the model.

Second - The stability of the results of the evaluation form:

The researcher used the (test and retest) method to find objective results for the performance appraisal model. After calculating the correlation coefficient (Pearson) between the degrees of application and the second, the value of the

moral correlation came in accordance with the law of the Ta'i, and it was found that the correlation was ethical to the degree of freedom (6) and the level of significance (0.50) where its value (T) was calculated and then greater than the scheduled amount (1.943), And display tables (2) that show that the test has a high degree of consistency.

I have sought the researcher to re - apply after tests (6) days of the application first.

Table(2) Stability of test results

Statistical significance	Value (T)	Stability coefficient value	Scoring skill assessment form
Moral	5.606	0.89	

Main study

After completing the experimentation of the survey and obtaining the results, it became clear that it is only valid for its application, and it has a high degree of (honesty, consistency). Accordingly, the researcher began applying the main experiment, which included three stages:

First stage - pre-measurement:

The pre-measurement was conducted to test (scoring accuracy towards a divided goal) on the two research groups (control, experimental) according to the specific specifications and performance conditions for the test. And because experimental research is exposed to several variables and factors that affect the safety of the experimental design, and in order that these factors do not affect the results of the current research, it has to be adjusted between the two groups (control and experimental) in order to determine the impact of the independent variable accurately, and in order to control the variables, the researcher intends to make Homogeneity and parity between the two groups (control, experimental) in the variables under discussion, as shown in table (3).

Table (3) Smoothing and parity of the two research groups (control, experimental) in the search variable

Statistical significance	Test value (t)		Test value (Leven)			variable
	Level of significance	Calculated	Statistical significance	Level of significance	Values (F) Calculated	
Not significant	.4820	7170	Not significant	0.252	1.402	Perform the scoring skill
Not significant	.4330	8020	Not significant	0.665	0.194	Accuracy of scoring

It appears from the above table that the mean values accompanying the two test values came from a greater significance level (0.05), which indicates that there are no real (job) differences between the results of the two groups, and this means that they are sufficient in the search variables (recording performance, recording accuracy) also appear From the same table, the two mean values accompanying two (came greater than the significance level (0.05), which indicates that there is no real (function) differences between the results of the two groups, and this means (equality) homogeneity between the treatment differences (performance of scoring skill, accuracy of grades) .

Phase II - Application exercise vocabulary of t own:

The time of application of the exercises took (12) weeks with (2) units per week, where the exercises were prepared according to the curve (strength and time), where the experimental group was trained according to the special exercises while the control group was trained according to the trainer methodology knowing that the trainer himself supervised Training the two groups where only the main section was interfered, so did the researcher consider that progression from performance difficult to easy.

The third stage - telemetry:

After completing the skillful exercises, the researcher started to apply post-test measurement to the two groups (control and experimental) under the same conditions and the plan in which the previous measurement was performed.

Statistical means

Among the statistical methods used in this research:

1. Arithmetic mean
2. Standard deviation
3. Standard error
4. Loach test
5. Correlation coefficient (Pearson)
6. Test (T Correlation sentiment)
7. Levine Test
8. Test (t) for two separate samples
9. (t) test for two separate samples

Statistical characterization of the results of previous and background tests of control and experimental groups in the two research variables (scoring performance, scoring accuracy) (Statistical description of preliminary test results for experimental groups and control groups in the two research variables), evaluation performance and scoring accuracy

Table (4) Statistical characterization of pre -test results for the experimental and control groups in the two research variables (scoring performance scoring)

Standard error	standard deviation	SMA	the group	variable
.1800	.5680	4.100	Experimental	Perform the scoring skill
0.213	0.675	4.300	Control	
0.211	0.667	14,000	Experimental	Accuracy of scoring
0.133	0.422	13,800	Control	

When studying Table (4), we find that all the standard errors of the variable Z to search for the experimental and control groups in the tests (before and after) were all small compared to the averages, and this shows that the samples represent the accuracy of the community (better representation) statistical description (the statistical description of the results of the dimensions tests for groups Experimental and control subjects in the two research variables).

Table (5) Statistical characterization of the results of dimensional tests of the experimental and control groups in the two research variables (scoring performance scoring skill)

Standard error	standard deviation	SMA	the group	variable
0.213	0.675	6,700	Experimental	Perform the scoring skill
0.267	0.843	5.400	Control	
0.597	1.889	16.700	Experimental	Accuracy of scoring
0.249	0.789	14,800	Control	

When studying Table (5), we find that all the standard errors of the variable search Z of experimental and control groups in the tests (before and after) were all small compared to the averages, and this shows that the samples represent the accuracy of the community presentation (better representation) and the analysis of the results of differences in the experimental groups and the criterion in measurement (Tribal - Dimensions) in the search variables (scoring performance skill, scoring accuracy) Displaying and analyzing the results of differences in the experimental group measurement (tribes - dimensions) in the search variables (scores of performance skill, scoring accuracy)

Table (6) Test values (t) Level of significance, statistical significance, and values (r) to measure) tribal - dimensional experimental group in search variables performance skill scoring, scoring accuracy.

Test value (t)				Variables
Statistical significance	Level of significance	Degree of freedom	Calculated	
Moral	0.000	9	9.750	Perform the scoring skill
Moral	0.003	9	3.948	Accuracy of scoring

From Table (6), it appears that the T-level values have a significance related to the T-test values (smaller than) 0.05 (which means rejecting the zero hypothesis theory) that there are no differences between the measurements before and after the participation in physical and kinetic research variables) acceptance of the hypothesis Alternative: There are differences between the two measurements before and after participation in the physical and kinetic search variables (display and analyze the results of differences in the control group in the measurement (before the dimensions) in the search variables (performance skill recording, rudder recording).

Table (7) Test Values (R) Level of Significance, Statistical Significance, and Values (PBUH) for Measuring Tribes - Dimensions (Control Group in Research Variables (Scoring Performance and Accuracy of Scoring)

Test value(t)				Variables
Statistical significance	Level of significance	Degree of freedom	Calculated	
Moral	0.007	9	3.498	Perform the scoring skill
Moral	0.015	9	3,000	Accuracy of scoring

From Table (7), it appears that the T-level values of significance associated with T-T values were smaller than (0.05), which means rejecting the zero-hypothesis theory (that there are no differences between the two measurements before and after participation in physical and kinetic research variables) Acceptance of the alternative hypothesis: (There are differences between the measurements before and after participation in the physical and kinetic research variables (Presentation and analysis of the results of differences in dimensional measurement between the control group and the experimental group in the two research variables (degree of performance, rudder)

Table (8) shows test values (t) importance level, statistical significance, and values (r) for measurement (distance) between control and experimental groups, search variables (recording performance, recording accuracy):

Test value (t)				the exams
Statistical significance	Level of significance	Degree of freedom	Calculated	
Moral	0.001	18	3.806	Perform the scoring

				skill
Moral	0.009	18	2.936	Accuracy of scoring

It appears from the same (8) that the two meanness level values accompanying the two (t) test values were respectively (0.037 and 0.031) which are smaller than (0.05), which means rejecting the zero hypothesis saying: (that there are no differences in the dimensional measurement in physical and motor variables) and acceptance The alternative hypothesis is: (There are differences in dimensional measurement in physical and motor variables).

Discuss the Results:

The results of the scoring performance tests and the accuracy of scoring football showed that there is a correlation between them and the researcher attributes this morale to the link to the mechanism with which this skill is being performed and its frequent need by football players, as it represents a skill that plays a crucial role in the outcome of the matches because the team players get a lot of it. During the match as a result of the mistakes made by the defenders or during the correct construction of the offensive tactic of the team as it is not possible to perfect the kinetic performance (technique) in any sporting event without possessing the skill qualities of that event and this is what was agreed with (Ibrahim Khalil Al-Hassani) as he indicated "that the level Skill ability develops as it develops its physical capabilities"(2)

So the trainers focus during the training units on skill exercises, which generates an increase in skill performance and high accuracy in the goal through the process of repetition and repetition of those exercises set by the coach and according to the level and age of the player.

Conclusions and Recommendations

Conclusions

In light of the results obtained by the researchers through the field experiment and the use of the most appropriate statistical methods to reach the following conclusions:

1. The proposed skill exercises have a positive effect in developing the scoring performance and accuracy of scoring football by those who are (13, 14) years old, belonging to the talented champion center in Al-Muthanna Governorate.
2. There are statistically significant differences between the results of the pre- and post-selection of the control group in the tests (scoring performance and scoring accuracy) and in favor of the post-test.
3. There are statistically significant differences between the results of the pre-test and the post-test of the experimental group in the tests (scoring performance and scoring accuracy) and in favor of post-selection.
4. There are statistically significant differences between the results of the post-test of the control group and the post-test of the experimental group in the tests (scoring performance and scoring accuracy) and in favor of the experimental group.

Recommendations

In light of the findings made by researchers through field research procedures, we recommend the following recommendations: -

1. Preparing different training curricula, training methods and various methods to develop basic skills for football who are 13 and 14 years old.
2. The need for trainers to rely on laying the correct scientific foundations when building training curricula and adopting all modern methods in order to upgrade and reach the goal in the shortest possible way.
3. Finding a mechanism for dealing between the centers of the talented champion and academics in the universities in order to make codified training programs based on the correct foundations to improve the physical and skill level of the players.

4. The necessity to pay attention to the early age groups, as it is the main tributary that nurtures our national teams with players.

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