

The Effect of Using Some Cognitive-motor Abilities on Learning the Performance of Passing and Shooting Skills in Football for Pupils Ages (11-12) Years

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Abstract--- *Through the experience of the researchers, as they are specialists in this field, they found that there is a difficulty facing students in mastering the stages of the motor performance of the passing and shooting skills on goal, which are the most important step in the success of the performance of these skills, and that learning the correct performance of these two skills gives a great motivation for students in mastering the rest of the stages. These skills, through the application of some exercises of cognitive abilities - kinetic in the process of learning the stages of kinetic performance of the skill because of these cognitive abilities kinetic importance as a way to improve the way of performance and achieve effective learning of the skill, while the goal of the research is to identify the impact. Some cognitive abilities - the kinematic in learning the performance of the passing and shooting skills of football for students between the experimental and experimental groups in the post-test. The researchers used the experimental approach to design equivalent groups with pre and post testing, and the research community was identified from the sixth primary grade students in Jaber Al Ansari Primary School for boys in the governorate Najaf at the age of (11-12) years for the academic year (2019-2020), as the number of community members reached (115) students distributed over (3) people, and (20) students were chosen from one division of them by lot and they were divided into two equal groups (10) Students of all groups. So that the first group is experimental, it applies exercises for some of the cognitive motor abilities and the second group is applied to the teacher's method (followed). As for the conclusions were for the exercises using some cognitive-motor abilities in learning the passing and shooting skills of football for pupils ages (11-12) years positive effect- Using analysis, presentation, and correcting errors in the performance of passing and shooting skills. An effect in developing the motor performance of football for pupils ages (11-12 years), attention to the means of clarification, presentation and correction, because it works to clarify the image of the stages of technical performance of the skills of students with studies and research and other basic skills differently to take advantage of them to reveal the strengths and weaknesses of other types of basic skills in order to develop the level of performance of the players and for other age groups.*

Keywords--- *Cognitive-Motor, Abilities and Learning.*

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I. INTRODUCTION

The initiation of the learning process can only be done through studying the many variables that accompany this process, including the type of effectiveness or activity, the type of skill to be learned, the available capabilities, the age level, the level of learning, experience, gender, learning methods and methods, as the process of learning the skill at the present time is the basis that will be adopted. It has a level of mathematical effectiveness, and that the correct learning of the skill using cognitive motor abilities is different and modern, taking into consideration the educational level of students and learners in addition to their physical and mental ability and individual differences, and thus we will get a high level of skill performance.

Football skills are associated with many of the cognitive and motor abilities that can be developed and developed during the learning process, as ideal perception is based on the accuracy of control in all basic football skills, because the skill of passing and goal has a fast pace in performance in the learning process, and the success of the student's movements depends. He has the right kinetic perceptions, as it gives him the ability to discover the best appropriate movements and the ability to kinetic compatibility, and that students who have perception and sense are able to perform skills that those who do not have the ability to perform them, that the different sports activities and m It is difficult and easy, including separate or serial ones,¹ including closed and open, all of which need organization and cognitive abilities - kinetic tests that are commensurate with these two skills, and it is more economical in time and effort for the purpose of reaching quickly and mastery to the process of learning the two skills, where football is one of the games Which is characterized by the abundance of its physical, cognitive and mental requirements in addition to its different skills and classification, "It is one of the interesting and popular games for young and old, for its popularity if we want to compare it with the rest of the other sports because of the excitement and movement requirements" From here it demonstrated the importance of research in the selection of units for the educational capabilities of cognitive-motor to raise the level of performance of students the skills of football, where he exercises cognitive abilities - motor were introduced within the educational units of the skills of football.²

II. RESEARCH PROBLEM

The process of advancing the physical education lesson for the elementary grades requires experimenting and selecting the most appropriate educational tools and tools and perceptual-kinetic abilities to improve the level of performance of the kinetic activities of the pupils, despite the diversity of learning methods, and through the experience of researchers as they are specialists in this field and found that there is a difficulty facing pupils in mastery. The kinetic performance stages of the passing and shooting skills on goal, which are the most important step in the success of the performance of these two skills, and that learning the correct performance of these two skills gives a great motivation for students in mastering the rest of these skills stages, through some exercises of cognitive-kinetic abilities should be applied in the process of learning the stages of kinetic performance of the skill because of these capabilities as a means to improve the way of performance and achieve effective learning of the skill.

III. RESEARCH OBJECTIVE

- Knowing the effect of some cognitive-motor abilities on learning the performance of passing and shooting skills in football for students between the control and experimental groups in the post-test.

Hypothesis

- There is a significant effect on learning the performance of the passing and shooting skills of football for pupils between the control and experimental groups in the post tests.

IV. RESEARCH METHODOLOGY

The researchers used the experimental approach to design equal groups with pre and post testing, and "what distinguishes meticulous scientific activity is the use of experiment" (1) ..

Community and Research Sample

The research community and its samples were identified by sixth-grade primary students in Jaber Al-Ansari Primary School for Boys in Najaf Governorate, at the age of (11-12) years for the academic year (2019-2020). (20) students from one class of them by lot and divided into two equal groups (10) students for each group so that the first group is experimental applying exercises for some of the cognitive motor abilities and the second group is controlled applying the teacher method (followed).

Sample homogeneity

The homogenization process was performed for the individuals in the research sample in the variables (age, length, mass) and Table (1) illustrates this.

Table 1: Shows the homogeneity of the sample (the two groups) under investigation

Variables	Units	Mean	Median	Mode	SD	Skewness
Length	Cm	111.23	112	110	166.5	0.366
Age	Year	83.11	11	11	133.1	0.123
Weight	Kg	66.45	25.45	75.45	96.3	466.0

Table (1) shows the homogeneity of the sample, as the values of the torsional coefficient range between (366, 0 - 466,0) and are between (± 3).

Equivalence of the two research groups

In order for the researcher to be able to attribute the differences in the results of the post-test of the variables under study to the effect of the experimental factor, the researcher resorted to checking the equivalence of the two groups by using the test (t) for the independent samples as shown in table (2).

Table 2: Shows the equivalence of the two research groups

Skills	Units	Control group		Experimental group		(t) calculated	Significant value	Type of significant
		Mean	SD	Mean	SD			
Foot passing	Degree	5.16	1.75	6.21	1.41	0.26	0.851	Non sig.
Foot shooting	Degree	4.21	1.04	5.44	1.15	0.38	0.716	Non sig.

Through Table (2), it becomes clear to us that the value of the test significance level (Sig.) is the largest value of the significance level (0.05), and for all variables under consideration, therefore, the test significance is not significant.

Devices, tools and methods used in the research

- Arab and foreign sources.
- The Internet.
- Personal interviews.
- Auxiliary team.
- Electronic Calculator (DELL) .
- Device for measuring height and weight.
- Flat school yard.
- Metric tape.
- Chalk.
- Whistle.
- Stopwatch.
- Legal footballs.
- Colored tape.

Research tests

First: Passing by foot³

Purpose of the test: A back-wall passing test for a period of (30) seconds

Measuring the accuracy of passing and receiving time and feet, preferred.

The necessary tools

- A wall depicting two squares, the length of the rib (mm) and the distance between them (5 m).
- Footballs.
- Stopwatch.

Test procedures

- The ball is placed on the circumference of a semicircle (150 cm) and the circle is far from each square a distance (5 m) as well
- When instructing, the player begins hitting the ball towards the first square and after each hit he runs toward the ball bouncing off the square and rolls it to the circle, then hits the foot to the second square, and thus continues until the end of the test time (30) seconds.

Registration method

- The number of correct times the player has played the ball is counted into the two squares within a period of (30) seconds.

- Give the player three attempts.

Second: Shooting test⁴

The second test: the shooting test of stability.

Aim of the test: Measurement of accurate aiming.

The necessary tools

- Football field, 10 balls, a tape to set the test area, a tape.

Test procedures

(10) foot balls are placed in different places on a line and inside the penalty area, and as shown in the figure below, where the player is aiming in the areas indicated in the test and according to their importance and difficulty and in a sequential manner one after the other, provided that the test is performed from a running position.⁵

- The test starts from ball No. (1) and ends with ball No. (10).
- The attempt is not correct in the event that none of the four goals is hit in each direction.

Registration method

- The number of injuries that enter or affect the four specified goals in each side of the target and with any feet from the feet is calculated so that the degrees of each ball from the ten balls are calculated as follows:
 - (3) scores when shooting in field No. (3).
 - (2) scores when shooting in field No. (2)
 - (1) Score when shooting in Field No. (1)
 - (0) Zero in all other target areas.
- The player is given only one try.

Pilot study

The exploratory experiment was conducted on Wednesday (10/10/2019), as the researchers conducted the exploratory experiment on a group of students that did not enter the basic experiment and from the same research community, as they reached (10) students. This group applied exercises for some cognitive-motor abilities and an educational unit one.

Pretests

Pre tests were conducted on the individuals of the research sample on 10/14/2019, as the students gathered in the classroom at nine in the morning and for the experimental and experimental groups, and they were distributed according to the following. Football. The researchers and the auxiliary staff have considered all conditions appropriate to the sample in terms of time, place, tools used and method of implementation, as well as the sequence of tests for the same pretests.

Educational program

The program was divided into eight (8) educational units with two instructional units per week, and the time for each of them was (40) minutes. Accordingly, the program took twelve weeks to be completed by 24 units, and the

total time of the units reached (960) minutes. The experimental group was implemented using exercises. Cognitive abilities - kinetic and control group approach in the manner followed by the teacher, for the period from (16/10/2019) to (16/1/2020), and given the importance of the teacher's knowledge of the educational units on how to apply the exercises of cognitive abilities - which include the perception of a sense of strength The foot muscles leading to skill realize the sense of time cognitive-motor visual sense of comparative sense of distance perception distance of the foot leading to the skill of one foot stability, the researchers applied the educational unit using some capacity cognitive-motor.

Post-test

After completing applying the educational program, the post-tests of the research sample (the two groups) were conducted on Tuesday, 18/1/2020, under the same conditions.

Statistical methods used

The researchers used the Statistical Package (SPSS) Version 20 to process data.

V. RESULTS

Table 3: Show the mean, the standard deviation of the pre and posttests, the calculated value and Wilcoxon test and their statistical significance for the results of passing and shooting skills in football between the control and experimental groups in the post tests are shown

Skills	Units	Pretest		Posttest		Wilcoxon value	Type of significant
		Mean	SD	Mean	SD		
Foot passing	Degree	3.17	0.41	5.5	0.55	2.23	Sig.
Foot shooting	Degree	2.5	0.55	4.5	0.55	2.26	Sig.

It is clear from Table (3) that the arithmetic mean value for the football passing skill in the pre-test reached (3.17) with a standard deviation (0.41), while the mean value for the post-test for the same variable (5.5) and a standard deviation (0.55), when calculating the Wilcoxon value between the pre and posttests was found to be (2.23), and when compared to the value of the significance at the level (0.05), it was found to be greater, which indicates the significance of the differences in favor of the post test.

It is clear from Table (2) that the mean value for the shooting variable in feet in the pre-test reached (2.5) and with a standard deviation (0.55), while the mean value for the post test for the same variable (4.5) and with a standard deviation (0.55), When calculating the value of Wilcoxon between the pre and posttests, I found that it reached (2.26), and when compared to the value of the significance at the level (0.05), I found that it is greater, which indicates the significance of the differences in favor of the post test.

VI. DISCUSSIONS

In order to explain the results of the researchers' results of the tests related to the performance of the skills (passing and shooting football), we note through Table (2), which shows the existence of moral differences and in favor of the post-test The researchers attribute the reason for this to the educational units of cognitive abilities,

which helped in learning Passing and shooting skills "so that each player can carry out the tasks assigned to the stadium, and technical skills must be analyzed into multiple steps in order to facilitate learning and obtain the best results through them" ⁶ as well as repetition without pauses during educational units and a large number as well as presentation and An analyst of the skill before and after the performance, which helped to obtain this moral difference in favor of the post-test and the development of technical performance in the skill of passing and shooting football,⁷ "The cognitive abilities exercises used to increase the accuracy of the technical performance of the skills of passing and shooting by defining specific areas of the stadium contribute to In the development of the correct level of performance and achieving the desired goal of performance".⁸

And do not forget about the auxiliary tools used in the performance, and watched the correct performance method before and after performing the educational units exercises and emphasizing the role of the foot in achieving accuracy of performance and successful implementation of the skills, while emphasizing ,that the educational process should be directed towards the learner, his needs, and capabilities within the context of his environment, his circumstances and his personal characteristics,⁹ rather than being directed towards the subject of the educational subject itself, because the educational process is not a transient activity or party In terms of time, it is a continuous process that accompanies a person throughout life, whether in the context of formal or non-formal learning, and for it to be so, it is necessary to create mechanisms for self-learning and its attitudes with the learner ”¹⁰. One of the major duties of the teacher is to teach the basic skills of the game as the education of students is designed to provide them with information and absorb the basic skills of the game and the ability to complete it in the best way, and it is agreed that the success of any player depends on the extent of his mastery of the basic principles and his ability to perform complex and simple tasks accurately and easily. Both agreed. This led to a significant difference in favor of the post-test and learning performance in the passing and shooting skills of football for students.¹¹

VII. CONCLUSIONS

1. Exercises using some cognitive-motor abilities in learning passing and shooting skills in football for pupils ages (11-12) years have a positive effect.
2. The use of analysis, presentation, and correcting errors in the performance of passing and shooting skills, an effect in developing the motor performance of football for pupils ages (11-12) years.

REFERENCES

- [1] Hassan MM, Al-Sayegh AM, Wahid OA. The Effect of the Use of the Self-Programming Method in Cognitive Achievement and Learning the Handling Skills of Football Students. *Indian Journal of Public Health Research & Development*. 2019 Oct 1;10(10).
- [2] Mohammed MA, Ali AH, Al-Sayegh AM, Alshawi HN. Organizational Loyalty and its Correlation to the Creativity of Members of the Federations in Tennis Games in Iraq. *Indian Journal of Public Health Research & Development*. 2019;10(10):2581-5.
- [3] Al-Sayegh AM, Gburi AH, Shalakha FK. Evaluation of the Performance of Sports Management According to a Standard Scale for Teachers of Physical Education in Najaf Governorate. *Indian Journal of Public Health Research & Development*. 2019;10(6):465-70.
- [4] Shafizadeh M, Gray S, Sproule J, McMorris T. An exploratory analysis of losing possession in professional soccer. *International Journal of Performance Analysis in Sport*. 2012 Apr 1;12(1):14-23.
- [5] González-Víllora S, Serra-Olivares J, Pastor-Vicedo JC, Da Costa IT. Review of the tactical evaluation tools for youth players, assessing the tactics in team sports: football. *Springer Plus*. 2015 Dec 1;4(1):663.

- [6] Castañer M, Barreira D, Camerino O, Anguera MT, Canton A, Hílano R. Goal scoring in soccer: a polar coordinate analysis of motor skills used by Lionel Messi. *Frontiers in psychology*. 2016 May 27;7:806.
- [7] Baker L. Effects Of dietary constituents on cognitive and motor skill performance in sports. *Sports Sci*. 2013; 26:1-6.
- [8] Tomporowski PD. Effects of acute bouts of exercise on cognition. *Acta psychologica*. 2003 Mar 1; 112(3):297-324.
- [9] Ferrari M. Observing the observer: Self-regulation in the observational learning of motor skills. *Developmental review*. 1996 Jun 1;16(2):203-40.
- [10] Alsayigh HA, Athab NA, Firas M. Journal of Global Pharma Technology The Study of Electrical Activity of the Triceps Brachia Muscle according to the Chemical Changes of Water Loss during Spike in Volleyball. 2017; 57–62.
- [11] Alsayigh HA, Athab NA. The Study of Rectus Femoris Activity after Knee Joint Rehabilitation. 2016; 9(9):360–5.
- [12] Jumaah H, Ktaman A, Abdul N, Athab K, Mohammed A. The Effect of Using Pain Management Techniques in the Rehabilitation of Chronic Lower Back Injury in Athletes and Non- Athletes. :108–12.
- [13] Athab NA, Hussein WR, Ali AA. A Comparative Study for Movement of Sword Fencing Stabbed According to the Technical Programming in the Game of Fencing Wheelchairs Class B. *Indian Journal of Public Health Research & Development*. 2019;10(5):1344-7.
- [14] Athab NA. An Analytical Study of Cervical Spine Pain According to the Mechanical Indicators of the Administrative Work Staff. *Indian Journal of Public Health Research & Development*. 2019;10(5):1348-54.