# The Most Important Kinetics Abilities for the Selection of Players Executing the Penalty Kick in Football under the Age of 14 Years 

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#### Abstract

Purpose of the study is to identify the most important kinetics abilities and their relationship to the selection of players executing the penalty kick in football under the age of 14 years.

The researchers followed the descriptive approach in a survey style and correlative studies, and the research community included football players in sports talent care centers (Football Specialized School) in the Middle Euphrates governorates (Babylon, Najaf Al-Ashraf, and Diwaniyah), which numbered (150) players from those schools. The final application sample included (120) football players in the National Center for the Care of Sports Talent in the central Euphrates governorates (Babylon, Najaf Al-Ashraf, Al-Diwaniyah) with a percentage of (80\%) of the original community of (150) players.

The researchers concluded the following (there is a significant correlation between the accuracy of scoring and the execution of the penalty kick for football players under the age of 14 years and a predictive equation for the execution of the penalty kick in terms of the accuracy of scoring for soccer players under the age of 14 years).


## Introduction:

The game of football is distinguished as the first popular game in the world because of the fun, competition and excitement it offers for all concerned, and the effective impact that the psychological and kinetic side can play in their main role and their fundamental importance in various sports fields and understanding the behavior of players, especially in the game of football with its modern methods, as It requires the player to have tremendous capabilities in movement, rapid action, overcoming recurring problems, and getting the player to perform the skillcorrectly ${ }^{(1)}$.

The performance of the penalty kick is an important factor in changing the results and obtaining the victory. This case is considered one of the best offensive means to obtain good and distinctive results, as it is best exploited in matches because of its impact, not highlighting the advantage of focus and accuracy enjoyed by one, two or three players in the team This player can change the result of his match when he performs the penalty kick better ${ }^{(2)}$.

A penalty kick is defined in football as a direct free kick awarded to a particular team as a result of a player committing a violation within the limits of his team's penalty area from the field ${ }^{(3)}$. Free kicks are calculated during the time of the match as a result of a mistake by one of the players, while penalty kicks are known as one of the ways that decide the results of matches, which cannot end in a draw, where penalty kicks are used to decide and determine the identity of the winner after the end of the original match time in a tie.

Therefore, identifying the kinetic capabilities of the football player, especially the penalty kick, because of its importance in resolving many matches through it. Therefore, the
process of selecting such players must be according to scientific bases that have a direct impact during the implementation of the penalty kick ${ }^{(4)}$. Among the kinetic abilities are accuracy and balance Kinetic speed, agility and flexibility.

## Research problem:

The penalty kick is one of the easiest opportunities that the team gets, especially during the match, and despite this, we find many players wasting that opportunity that would achieve victory if invested in ways and methods that depend on the process of selecting the player who will kick the ball based on the most important determinants that It would make the team ahead when it provides such opportunities, especially the kinetic abilities, as it is one of the most important determinants related to the penalty kick taker.

## Research objective:

- The goal of the research is to identify the most important kinetics abilities and their relationship to the selection of players executing the penalty kick in football under the age of 14 years.


## Research fields:

The fields of research were represented by the players of specialized schools for football sports talent under the age of 14 for the middle Euphrates region, and the time of conducting the experiment was on date of $16 / 12 / 2020$ until $3 / 5 / 2021$. As for the place of conducting training and field experiments, the researchers chose stadiums and specialized centers for sports talents in the middle Euphrates region (Babylon, Najaf and Diwaniyah).

## Research methodology and field procedures:

## Research Methodology:

The researchers followed the descriptive approach using the survey method and correlational studies.

## Community and sample research:

The research community included football players in sports talent care centres (specialized school for football) in the central Euphrates governorates (Babylon, Najaf, and Diwaniyah), which numbered (150) players from those schools, and the final application sample included (120) player of football players at the National Center for the care of sports talent in the provinces of the Middle Euphrates (Babylon, Najaf, Diwaniyah) as a percentage of ( $80 \%$ ) of the original community of 150 players.

## Field research procedures:

## Determining the most important kinetics abilities:

For the purpose of determining the most important kinetics abilities of the players of specialized football schools, the researchers identified a group of kinetics abilities and included them in a questionnaire and presented them to a group of experts and specialists in the field of (testing, measurement, sports training and motor learning) as well as specialists in the game of football to explore their opinions in order to determine the most important The kinetics abilities
that must be available for the players of the specialized schools of football at the age of (under the age of 14) years in the central Euphrates governorates (54\%) of the percentage, and thus the number of acceptable kinetics abilities became (3) out of (5) kinetics abilities, as shown in Table (1).

Table(1)shows the degree of importance, relative importance and acceptance of the nomination of the most important kineticsabilities.

| kinetics <br> abilities | Degreeof <br> importance | Relative <br> importance | Nomination <br> accepted |  |
| :--- | :---: | :---: | :---: | :---: |
|  | 119 | $\% 99$ | $\sqrt{\text { Yes }}$ | No |
| Scoring <br> accuracy | 90 | $\% 75$ | $\sqrt{ }$ |  |
| balance | 115 | $\% 96$ | $\sqrt{ }$ |  |
| Kinetic speed | 60 | $\% 50$ |  | $\sqrt{ }$ |
| Flexibility | 55 | $\% 45$ |  | $\sqrt{ }$ |
| agility |  |  |  |  |

## Determining tests of the most important kinetics abilities:

After the researchers identified the most important kinetics abilities that must be available for players in specialized schools of football at the age of (under the age of 14) years, and for the purpose of determining tests for the most important kinetics abilities, the opinions of experts and specialists in the sports field were surveyed, and after determining them, the experts indicated the need for there to be more than A test for each motor ability, so each kinetics ability was included (3) tests and presented to the same experts and specialists for whom the most important motor abilities were previously determined. The results of the acceptance of motor tests that obtained higher than (54) of relative importance or higher than (54\%) of the percentage, and thus the number of accepted motor tests became (3) out of (9) tests of kinetics abilities, as shows in the table (2).

Table (2) shows the degree of importance, relative importance and acceptance of the tests concerned with measuring the most important kinetics abilities.

| kinetics abilities | Tests | Degreeof importance | percent | Nomination accepted |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Yes | No |
| accuracy | Coring test on rectangles drawn on the wall. | 55 | \%36.66 |  | $\checkmark$ |
|  | Aiming at a circle of diameter (1) from a distance of one meter (3) meters | 49 | \%32.66 |  | $\checkmark$ |
|  | The scoring test from stability on the football goal is divided by bars into squares. | 129 | \%86 | $\checkmark$ |  |


| Kinetic speed | Maximum strength test for the legs / measurement of the maximum strength of the quadriceps, back and golf muscles. | 44 | \%29.33 |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Scoring towards the wall / measuring the kinetic speed of the goal (the number of correct times within 30 seconds. | 135 | \%90 | $\checkmark$ |  |
|  | Rapid grip and extension of the thigh and knee joints in (10) seconds. | 66 | \%44 |  | $\checkmark$ |
| Kinetic balance | Balance test (rectified) measurement of static balance. | 70 | \%46.66 |  | $\checkmark$ |
|  | Test of standing with both feet on ball. | 53 | \%35.33 |  | $\checkmark$ |
|  | Balance test on the instrument panel (moving balance measurement) | 132 | \%88 | $\checkmark$ |  |

## Exploratory experiment:

The exploratory experiment is one of the important steps in the implementation of scientific research, through which the researcher obtains a lot of information and notes regarding the implementation of his research procedures, and the "exploratory experiment" ${ }^{(4)}$ is defined as a preliminary experimental study carried out by the researcher on a small sample before carrying out his research in order to test the research methods and tools, so the researchers conducted a pilot test on a sample of Hilla Club and their number was 6 players whose purpose ${ }^{(5,6)}$ was to:

- Knowing the time taken to perform the test.
- Ensuring the scientific basis for the tests.
- To identify the difficulties that the researcher may face in the course of his work and to develop appropriate solutions to them.
- Ensure the validity of the devices and tools used.
- Ensuring the adequacy of the auxiliary work team.
- Identify errors in advance before conducting the main experiment


## Main experiment:

## The final application of the paragraphs of measures of psychological determinants and motor abilities on the main sample members:

Due to the completion of the procedures that qualify the application of tests of movement capabilities on the individuals of the main research sample after the completion of the implementation of the exploratory experiment, which confirmed the validity of the tests concerned with measuring the most important mobility abilities of players in specialized schools
of football at ages (under the age of 14) in the governorates of the central Euphrates (Babylon and Najaf Al-Ashraf and Al-Diwaniyah) In addition to providing the necessary devices and tools, the researcher began conducting his experiment on the members of the main application sample of (120) players, as the application period lasted (15) days, starting on Sunday, 4/4/2021 and ending on Wednesday, corresponding to $14 / 4 / 2021$, as those tests included on the application of the motor abilities tests represented by the implementation of penalty kicks in the amount of (10) kicks for each player, as the researchers took into account the application of those kicks by making the player perform them as if in the atmosphere of the match through encouragement and psychological pressure and with the help of coaches, and then the Dumping the data into special forms, then the two researchers conducted statistical treatments on that data through using statistical means.

## Statistical methods:

The search data was processed through the Statistical Package for the Social Sciences (SPSS).

## Presentation, analysis and discussion of the results:

Presenting the results of the pre and post tests for the two groups for the variables under study:

## Predicting the execution of the penalty kick in terms of kinetics abilities:

## Correlation coefficients and percentages of kinetics abilities contribution by executing the penalty kick:

For the purpose of identifying the correlational relationships and the percentages of the contribution of the motor abilities variables among the players executing the penalty kick, and to achieve the goal of the study (recognizing the most important motor abilities and their relationship to the selection of players executing the penalty kick in football under the age of 14 years), the researchers sought to study the correlation between those abilities and the implementation of the penalty kick.

When studying the correlation and the proportions of the contribution of the motor abilities of the players executing the penalty kick, the results of the correlation showed that there was a positive correlation with the variable (scoring accuracy), while the (kinetic speed, Kinetic balance) were negatively correlated, and this indicates that the variables of kinetic speed and kinetic balance are not significant and significant. Statistically and not influential for the player executing the penalty kick, and this confirms that the implementation of the penalty kick is directly proportional to the scoring accuracy and inversely proportional to other variables (kinetic speed, moving balance), as show in the table (3).

Table(3) shows the interrelationships between the kinetic abilities and the execution of the penalty kick.

| Variables | Take a penalty <br> kick | Scoring <br> accuracy | Kinetic speed | Kinetic balance |
| :---: | :---: | :---: | :---: | :---: |


| Take a penalty <br> kick | 1.00 | 0.22 | -0.08 | -0.06 |
| :---: | :---: | :---: | :---: | :---: |

From Table (3) it becomes clear that the penalty kick was significantly related to the variable (scoring accuracy), where the results indicated that the correlation was positive indicative and that the value of the scoring accuracy variable reached ( 0.22 ), while the results included a negative and non-significant correlation with the variable of movement velocity and moving balance as its value reached The kinetic speed is ( -0.08 ), while the value of the equilibrium variable is $(-0.06)$ in a negative direction.

For the purpose of identifying the moral significance of the correlation coefficient of scoring accuracy with the implementation of the penalty kick, the researcher shows this through Table (4).

Table (4) shows significant significance of the scoring accuracy correlation coefficients.

| Variable <br> s | relationshi <br> p | nature of <br> the <br> relationshi <br> p | Contributio <br> n <br> percentage | Adjusted <br> percentag <br> e | standard <br> deviatio <br> n | F <br> valu <br> e | Leve <br> 1 sig | Si <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Scoring <br> accuracy | $0.225^{*}$ | single | 0.50 | 0.42 | 0.930 | 6.27 | 0.014 | Si |
| g |  |  |  |  |  |  |  |  |

From Table (4) it is clear that the value of the coefficients and the percentage of the contribution of the scoring accuracy of the players executing the penalty kick was significant by testing it when calculating the value of ( f ) calculated as an indicator of the significance of the correlation coefficients and the contribution ratio, whose calculated value amounted to (6.27) when the single correlation coefficient is greater than Its tabular value of (2.17).
The researchers believe that the players executing the penalty kick in football must be characterized by scoring accuracy, which indicates that the players executing the penalty kick are characterized by these abilities and wish to implement the planned sports laws and rules and implement what is required of them to adopt most of the motor abilities that make them useful in the success of the penalty kick implementation process soccer ball.

For the purpose of predicting the execution of the penalty kick in terms of motor abilities (scoring accuracy) and to achieve the goal of the study, which included (recognizing the most important motor abilities and their relationship to the selection of players executing the penalty kick in football under the age of 14) and obtaining a predictive or expected value for the level of the players executing the penalty kick, the researcher sought to use equations Linear regression, which enables us to predict this relationship, the researchers shed light on the values of the linear regression coefficients between the execution of the penalty kick and the motor abilities (scoring accuracy), which are indicated in Table (4).

Table(5) shows the values of the coefficients of the regression equations for the execution of the penalty kick in terms of the accuracy of the goal

| Variables | parameters |  | Skew ness | T value | Level sig | Sig |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | parameter <br> value | Natureparameter | Skig |  |  |  |
| Constant | A | 6.146 | 0.371 | 16.574 | 0.000 | Sig |
| Scoring <br> accuracy | B | 0.114 | 0.046 | 2.504 | 0.014 | Sig |

It is evident from Table (5) regarding the values of the linear regression equation for motor abilities (scoring accuracy) and the derivation of a predictive equation or an expected value for players executing the penalty kick in football under the age of (14)

## Conclusions and Recommendations:

## Conclusions:

Based on the research results that were reached within the limits of the research community, the following conclusions were reached:

- There is a significant correlation between the accuracy of scoring and the execution of the penalty kick for football players under the age of 14 years.
- Develop a predictive equation for the execution of the penalty kick in terms of scoring accuracy for football players under the age of 14 years).


## Recommendations:

- The necessity of adopting kinetic abilities as codified research tools in measuring the players executing the penalty kick in football under the age of 14 years.
- The necessity of developing the accuracy of soccer scoring, as it has a moral contribution in the execution of the penalty kick.
- The necessity of conducting studies that include the variables of the current study on samples and on different unions.


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