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The Effect of Special Exercises to Develop Response and Shooting Speed After Deception in Youth Handball Players

Ali Fakher Mahdi

General Directorate of Education of Dhi Qar

ali.fm@utq.edu.iq

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Corresponding Author :

00647813820387

ABSTRACT

The research contained four chapters, which we dealt with in the first chapter, where we defined the research through the introduction and the importance of the research, where we knew the development that is currently taking place in sports, the reasons and how the world develops, then the importance of the exercises placed in the training curricula and how to improve them and make the best use of them, and we were able to know the speed of response and its importance in the game of handball, and how to develop shooting from deception and its importance, as well as we introduced the problem and how to identify and treat it, and successful exercises are the basis for solving Many of the problems that the coach tries to eliminate to build athletes who practice the game of handball well, and there were two goals to be researched, which are:

1. Preparing special exercises to develop the speed of response and aiming from jumping after deception in young handball players
2. To identify the significance of the differences between the experimental and control research groups in the post-tests of some physical abilities and the speed of response to the high shooting accuracy of handball players.

There is also a hypothesis of research:

1. There is a positive effect of exercises developed by the researcher for the development of young players
2. There are statistically significant differences between the pre- and post-tests of the control and experimental groups and in favor of the experimental group

As for the research areas where they were

Human field: Players of clubs in Dhi Qar province under the age of 20.

Time Domain: From 1/10/2024 to 25/12/2024.

Spatial Domain: Martyr Haider Kamel Hall .

As for the third chapter, how to conduct research from identifying the community and selecting the sample that represents the community in real terms, and we conducted homogeneity and parity for it so that the starting line of work is the same and not to be distracted, then we touched on the means of collecting information and tools and how to measure skills through tests, and we conducted exploratory experiments to control all variables and scientific foundations, as well as we conducted pre-tests, then the experiment, then the experiment, and then we processed the results statistically to know the changes that occurred.

The fourth chapter is to present, analyze and discuss the results we obtained and to know all the changes that occurred to the control and experimental groups

1. Definition of the research:

11 Introduction and Importance of the Research:

The development of athletes in general depends on how to choose the right exercises according to scientific foundations based on a solid base of correct information that is generated by the coach as a result of experience, practice and familiarity with modern sciences, and that the selection of training at the moment is accurate and works to build an integrated athlete that serves the team and helps it to perform fully.

The correct use of exercises according to studied scientific foundations helps to save effort and give more than randomly selection, so you must pay attention to how to choose exercises in training and adjust them accurately to achieve the desired goal, so in the game of handball, work is done to choose the exercises according to the requirements of the physical, skillful and psychological game, and how to control the player's performance under the pressure of playing and the transition from defensive to offensive performance, as well as the requirements of the game, as it is distinguished by high effort and accurate performance in skills. And how to defend, all of this should be taken into account by the specialists in the game of handball.

The speed of response is one of the most important physical qualities required in handball players, and with the skill performance, it constitutes a great strength in the player and work to develop it, in addition to the performance of deception and shooting, the player has a performance that helps him overcome many obstacles during the game, and the motor response can be known through the time period between the appearance of the stimulus and the duration of the response, where the stimuli are transmitted through sensory receptors to the central nervous system and then transferred to the body organs specialized in the response.

Handball is one of the team games in which the motor response is an important factor in deciding the game and the player needs it in defense and his movements according to the movements of the attacker as well as in attack and choosing a quick move to overcome the movement of the defending player and shooting and getting rid of the shots during deception as well as the performance of shooting away from the defender came from here came the importance of research in developing special exercises to develop the response in young handball players as well as developing shooting from deception because it is very important in the development of the player

1-2 Research Problem:

One of the most important training duties of team game coaches is to know the details of the game clearly and find the best ways and methods to develop players, as we see that there are simple details that help to decide important matches, and through the researcher's observations and practice of the game of handball, he found that there is an urgent need to develop the speed of response, as it is considered the decisive factor in many situations that the player goes through during the matches, so it was found that the development of the speed of response has a great benefit, as well as the development of shooting. After performing deception, as it is a basic skill and is often used by the player in matches, and there is a correlation between the response and this type of shooting, where during the performance of deception movements, there will also be movements from the deception,

and there must be a quick response in the attacking player to the movement of the defending player and work to overcome the defender through the speed of performance, so the researcher decided to design special exercises to develop the motor response, as well as flying the shot from deception to develop the players.

1-3 Research Objectives:

1. Preparing special exercises to develop the speed of response and aiming from jumping after deception in young handball players
2. To identify the significance of the differences between the experimental and control research groups in the post-tests of some physical abilities and the speed of response to the high shooting accuracy of handball players. .

1-4 Hypothesis of the Research:

The researcher assumes that**:**

3. There is a positive effect of exercises developed by the researcher for the development of young players
4. There are statistically significant differences between the pre- and post-tests of the control and experimental groups and in favor of the experimental group

1-5 Research Areas:

1.5.1 **Human Field:** Players of Dhi Qar Governorate clubs under the age of 20.

1-5-2 **Temporal Domain:** From 1/10/2024 to 25/12/2024.

1-5-3 **Spatial Domain:** Martyr Haider Kamel Hall .

3 – Research Methodology and Field Procedures:

3-1- Research Methodology:

The researcher used the experimental method with two equal control and experimental groups to solve his problem.

3-2- The research population and its sample:

Determining the sample is one of the important matters in scientific research, so the researchers identified the research population by the deliberate method, which are the clubs of Dhi Qar governorate under the age of 20 years, the number of (80) players, and the sample of the research experiment was selected by lottery, which are the players of Dhi Qar Club, which are 24 players, and the sample was taken (20) of them and they were divided into two groups (experimental and control) with a percentage of (8)) players for each group of research groups, either the excluded were due to the lack of commitment of some and the inclusion of others in the reconnaissance experiment.

3-3- Homogeneity of the sample:

In order to show the homogeneity of the research sample and then measure the variables of height, weight and training age, the test was conducted, where the researchers used the torsion coefficient for the purpose of homogeneity, as it appeared through Table (1) that the ratio is homogeneous.

Convolutio	Broker	Standard Deviat	Arithmetic me	Unit of Measuremer	Variables
0,201	١٨,٤٩	٠,٠٥٥	١٨,٥٤	year	Chronological A
0,498	١٧٨	٥,٦٨٩	١٧٩	poison	Length

0,527	٦٦,٥٤	٤,٣	٦١,٦	Kg	Mass
0,452	٤,٥٨٨	٠,٦٨٥	٤,٣٦	year	Training age

The specimen is considered homogeneous if the torsion coefficient is between (1).±

3-4- Parity:

The researcher equalized the sample using the (T-test) test for the independent samples of the results of the pre-tests in the two groups in order to control the variables that change in the experiment as in the

Table No. (2)

Variables	Unit of Measurement	Experimental Group		Control Group		(c) Calculated	SIG Value	Significance
		Going to	on	Going to	on			
Motor response to multiple dire for the legs	second	٢,٣١	٠,١٠	٢,٢٩	٠,٢٢	١,٢٢	1.57	No moral
Correction	A lot	٥	٠,٥٥	٥	٠,٤٢	١,٠٢	2.58	immoral

- Table (2) shows that the values of the significance levels were higher than the significance level (0.05) for all research variables, and thus the differences between the two research groups are not significant, which achieves parity between them.

3-5. Means of collecting information, tools and devices used in research:

3.5.1. Means of Collecting Information:

1- Arabic and foreign sources and references.
2- Internet of Information.
3- Questionnaire for information.
4- Testing and measurement.
5- The interview.

3.5.2. Tools and Devices Used:

1- Legal handball court.
2- Handballs
3- Medical Balls
4- Multiple Indicators
5- Whistle.
6- Tape measure.
7- Adhesive tape.
8- Weighing scale.

3-6- Field Research Procedures:

First test: Motor response speed test for multiple directions (for men) (6:198)

Purpose of the test: To measure the kinetic response time according to the choice of the four-way stimulus.

Tools used: Obstruction-free flat space, stopwatch, tape, colored tape.

Procedures: The test area is planned as in Figure (1) and the distance between point (×) and the four lines is (6.40 m).

Method of Performance:

- The tester stands on point × and focuses his gaze on the raised hand of the referee who stands at point A.
- The referee gives a signal (get ready) to the laboratory.
- The referee holds the watch in one hand and raises it high, then quickly moves his arm either to the right, left, front or back, and at the same moment he turns it on.
- The tester responds to the referee's signal and tries to cover the distance as fast as possible in the specified direction and when it reaches the finish line, the referee stops the stopwatch.
- The experimenter is given (8) attempts divided into four directions between one attempt and another (20 seconds) rest.
- Attempts are randomly selected.

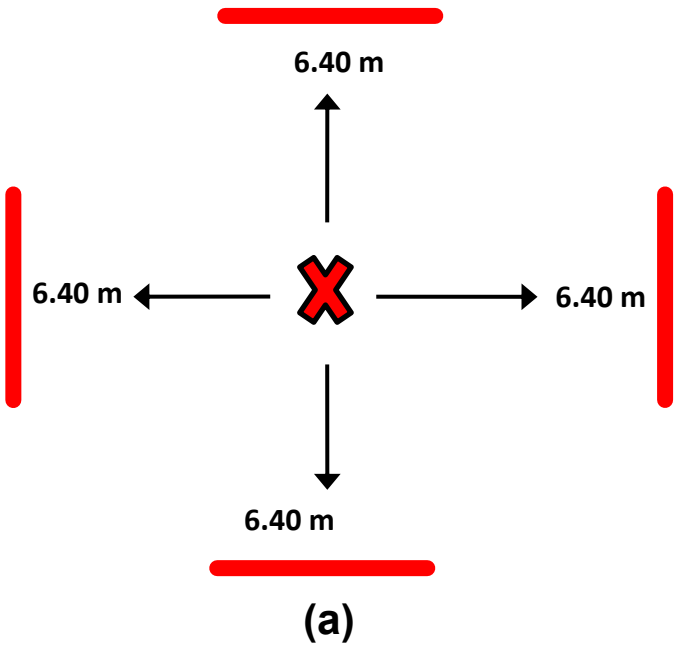
Exam Requirements:

1- The laboratory does not know that it is required to make eight attempts distributed in the four directions equally.

1- The referee should practice the start signal, give the signal with the arm, and operate the watch at the same time.

3-The test starts by giving a signal (I am getting ready... start) and the time between the two words ranges between (1.5-2) seconds.

Scoring: The time of each attempt is calculated, and the score of the lab is the average of .the eight attempts



(a)

Figure (1)

Second Test: Aiming Test After Deception (8:21)

Test Name Ten Balls After Performing Deception

Purpose of the test: Accuracy of aiming after performing the deception

Tools: A jumping device on a curtain with a height of 1.5 meters placed on the crossbar of the jumping device to close the goal with four squares, of which 40 by 40 cm, the corners of the goal represent ten balls, as shown in the figure.

- Exercise from the center of the forearm that stands in front of the middle of the jumping machine by half a meter and with a ball on the outstretched palm of the hand

Method of Performance : The game stands at a point, the player moves to pick up the ball from the hand of the watch, then he moves against the first move within the limits of three steps to fix, then he shoots at one of the two distant squares, repeats this work until the ten balls are finished, five on each square alternately, the condition is not to dribble the ball, the conditions are not to dribble the ball.

Registration:

1- One score is given for each correction and correct within the specified box
2- You receive the grade in case of any legal violation three seconds three steps three
The score is canceled in case of the ball dripping

3.6.3. Exploratory Experience:

On (1/9) the reconnaissance experiment was conducted on a group of (4) players where the test was applied to them, then after 7 days the test was re-tested, and the purpose of this procedure is to know the scientific foundations of the test, as well as to adjust the intensity and timing of the exercises and to know all the preparatory matters for the pre-test .

3-6-4- Pre-Test:

The pre-test was conducted on 1/10/2024 on the control group and the experimental group and the results were taken for them.

3-7- Main Experience:

- The researcher prepared special exercises within the framework of the training curriculum in its main section for the special preparation stage, taking into account the available possibilities and the general level of the research sample, based in its preparation on the scientific foundations of sports training and on some scientific sources and references, and the training curriculum focused on comprehensiveness.
- The exercises were applied to the experimental group and the training units were under the direct supervision of the researcher.
The researcher adopted the method of high-intensity interval training.

3-7-1- Post-test:

The post-tests were conducted on 15/12/2024 on the experimental and control groups, and the results were taken and processed statistically.

3-8- Statistical Means:

The researchers used the SPSS statistical bag :

- Arithmetic mean.
- Standard deviation.
- Torsion coefficient.
- .Percentage
- T.test .

Chapter Four

4. Presentation, analysis and discussion of the results

4.1 Presentation and analysis of the results of the pre- and post-tests of the control group

Table (3)

It shows the value of the arithmetic media, the standard deviation, the calculated t-value, (sig) and the type of significance of the control group in the pre- and post-tests

Significan	value Itself	T Calculate	Post-test		Pre-test		unit scaling	Variable
			on	Going t	on	Going t		
No mora	1.57	١,٢٢	٠,١٩	٢,٢٢	٠,٢٢	٢,٢٩	second	Motor Respons For multiple dire both mer
No mora	1.33	١,٤٢	١,٣	٦,٥	٠,٤٢	٥	A lot	Aiming test after

(*) Significant if the significance level is (0.05). >

Table (3) shows the value of the arithmetic media, standard deviation, calculated t-value , Sig value, and knowing the type of significance of the control group in the pre- and post-tests of the tests, where the values **of motor response speed for multiple directions for the two men** were the arithmetic mean in the pre-test was 2.29 and the deviation was 0.22, while in the post-test, the arithmetic mean was 2.01 with a deviation of 1.22, and the calculated t-value was 1.22, and the value ofSIG 1.57 As for the value of **the shooting test skill after the pre-deception**, the arithmetic mean was 5 with a deviation of 0.42, and in the post-test, the arithmetic mean was 6.5 and its standard deviation was 1.3, and the value of t was 1.42 and the value of SIG was 2.33, and through these results, the value of SIG shows us.It is greater than (0.05) which indicates that the differences are not significant.

4.2 Presentation and analysis of the results of the pre- and post-tests of the experimental group

Table (4)

It shows the value of the arithmetic media, the standard deviation, the calculated t-value, (sig) and the type of significance of the experimental group in the pre- and post-tests

Significan	value Itself	T Calculate	Post-test		Pre-test		unit scaling	Variable
			on	Going t	on	Going t		
Moral	0.00	١٣,٢٢	٠,١٤	١,٥٥	٠,١٠	٢,٣١	second	Motor Respons for Multiple Dire Legs

Moral	0.00	٦,٢٢	١,٤٠	٨	٠,٥٥	٥	A lot	Aiming test after

(*) Significant if the significance level is (0.05). >

Table (4) shows the value of arithmetic medians, standard deviation, calculated t-value , Sig value, and knowing the type of significance in the pre- and post-tests of the tests for the experimental group, where the values **of motor response speed to multiple directions for the two men** were the arithmetic mean in the pre-test was 2.31 and the deviation was 0.10, while in the post-test the arithmetic mean was 1.55 with a deviation of 0.14 and the value of The calculated t t was 13.22 and the SIG value was 0.00, while **the value of the correction test after deception** in the pre-test was 5 with a deviation of 0.55, and in the post-test, the arithmetic mean was 8 and its standard deviation was 1.40 The value of t was 6.22 and the value of sig was 0.00, and through these results, the value of sig is shown to us, which is less than (0.05), which indicates the significance of the differences and in favor of the post-test.

4.3 Presentation , analysis and discussion of the results of the post-tests of the experimental and control groups

Table No. (5)

Shows the value of the arithmetic media, standard deviation, calculated t-value, (sig) and the type of significance for the control and experimental groups in the post-test

Significan	value Itself	t Calculate	Post-test Experimental		Post-test The police		unit scaling	Variable
			on	Going t	on	Going t		
Moral	0.00	٩,٦١	٠,١٤	١,٥٥	٠,١٩	٢,٢٢	second	Motor Response for Multiple Directions Legs
Moral	0.00	٦,٢٥	١,٤٠	٨	١,٣	٦,٥	A lot	Aiming test after

(*) Significant if the significance level is (0.05). >

Table (5) shows the value of the arithmetic media, standard deviation, calculated t-value , Sig value, and knowing the type of significance for the control group in the pre- and post-tests of the tests for the experimental and control groups, where **the speed of motor response to multiple directions for the two men The** arithmetic mean in the post-test of the experimental group was 1.55 and the deviation was 0.14, while in the post-test of the control group, the arithmetic mean was 2.01. With a deviation of 0.19, a calculated t-value of 9.61, and a SIG value of 0.00, while the value **of the aiming test after deception** in the post-test of the experimental group was 8 with a deviation of 1.40 In the post-test of the control group, the mean was 6.5, its standard deviation was 1.3, and the value of t was 4.98 and the SIG value is 0.00, and through these results, the SIG value is shown to us, which is less than (0.05), which indicates the significance of the differences and in favor of the post-test.

4-4 Discussion of the post-tests of the control and experimental groups

Through Table (5), through which the results of the post-test were presented and analyzed, it was found that there is a clear progress of the results of the post-tests of the experimental group that was the research sample and new and varied exercises were developed for them to increase the benefit and stay away from routine exercises, and this is consistent with what was stated **(Qasim Hassan and Ali Abed, 1988)** that "the level of athletic achievement rises rapidly during the use of new exercises that the athlete is not used to and carries special doses."(2:105) Therefore, the researcher believes that the nature of the exercises and the way they were performed helped in the development of the experimental group, which was according to the exercises set and under the supervision of the researcher, and through those who were studied in the research, the results of the tests used in the research

The speed of motor response to multiple directions of the men: There is a clear development in it through the results of the tests that appeared in favor of the post-tests of the experimental group, and the researcher believes that this is due to the nature of the exercises and how they are applied, and confirms **(Thaer Rashid, 2014)** that it is natural that there is progress in the mastery and development of skills through the trainer's reliance on the scientific foundations in determining the exercises used to develop and develop the speed of response to the skills to be further developed through practice and repetition (10:127) Because speed of response is one of the important qualities of handball players, the researcher believes that it is selected and developed, and accordingly, the speed of motor response is one of the vital requirements necessary for various games and events in general and the game of handball in particular, as this game differs from the rest of the games in the continuous and changing nervous and muscular effort according to the conditions of the match, as it requires the player to be prepared and always ready to be exposed to various and variable external stimuli, whether with or without the ball. 192) . Also, focusing on the scientific foundations in developing the components of the training load and its impact on the development of this traitin terms of intensity as well as size, and this is confirmed by **(Mohamed Hassan & Abul Ela Ahmed Abdel Fattah, 2000)** that the basic principle in the development of motor response speed is the repetition of performance, i.e. the repetition of the appearance of the stimulus and the response to that stimulus (8:89).

As for the shooting test after deception by observing the results of the tests, it was found that there is a development in the post-test, and the researcher believes that the exercises developed had a role in the development of the skill performance of the shooting skill, as well as the curriculum in terms of the components of the training in terms of intensity and size, and this is confirmed **by (Talha Hossam Al-Din (et al., 1997)** that "the intensity of the load, its duration and the total volume of training are essential components in the development of any training curriculum, regardless of its different objectives. It represents

the tools of the curriculum in the development and development of the player's training state, whether it is physically or skillfully" (3:68) as well as emphasizing the use of exercises to develop the important aspect of the goal-scoring process, which is shooting. Kamal Aref and Saad Mohsen Ismail (1989) point out in their explanation of the shooting skill: "Since the result of the match is determined by the number of goals scored by one team against another, we can consider the shooting skill as the boundary between winning and losing." (4 : 83) Therefore, the development of aiming helps us to succeed in many offensive operations, and this is what the exercises worked on in our researchand helped us to develop the development in shooting. Therefore, this skill was selected and developed simultaneously as a response to its great importance in the game of handball, and in order for the player to reach an advanced stage, it helps the team to succeed in its tasks and develop its abilities, so there must be a variety of exercises used, and most of the exercises lead to the development of several skills at the same time, but the exercises should be codified and the goal is clearly defined and reviewed continuously, and it is emphasized **(Waleed Yahya, 2002).** However, "the use of well-designed and well-executed programs that lead to the development of physical and skill performance is one of the reasons for athletic excellence (10:67).Raysan Khraibet (1995) also **points** out that "structured and programmed training, the use of standardized types of intensity in training, and the use of optimal rest between repetitions lead to the development of physical abilities" (6: 122). Therefore, the researcher worked through his research to develop the players and improve their level permanently and consistently.

5. Conclusions and Recommendations

5.1 Conclusions:

Through View and analyze results Discussion concluded The following:

- Exercises, especially to develop the speed of response and aiming after deception, have a good effect on the development of young handball players
- The amount development of these traits in the experimental group is greater than in the control group.

5-2 Recommendations:

In light of

- The use of special exercises to develop the speed of reaction and shooting should be done regularly to maintain the level of performance of the players
- Using these exercises on other skills such as handball skills, and knowing how to use them more widely.

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