

The effect of exercises using the Cogni Plus device on developing perception of handball referees

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ABSTRACT

The study aims to use modern technology in developing handball rulers using exercises of the Cogni Plus device and to identify the effect of exercises in developing perception of the handball rulers. The study hypothesizes that the exercises of the Cogni Plus device have a positive effect on developing perception of handball referees.

The researchers used the experimental method in the one group method to suit the nature of the problem studied. The study community identified the handball referees accredited in the Central Iraqi Handball Federation for the sports season 2016-2017 and they numbered (43) first-class rule workers, and handball referees were chosen in the Middle Euphrates region In Iraq, in the simple random method, where the number of the sample became (10) rulers, the arithmetic circles of the perceptual variables ranged, so the arithmetic mean for the total field of vision (169.1 ± 1.203), visual focus (49.184 ± 1.14), divided attention (79.381 ± 1.242), and emotional maturity (1.824 ± 0.081) and response time Verb (0.682 ± 0.021), after prolongation The direct awareness of the Vienna system and its devices, the researchers chose the perimeter perception test and the Alertness - phasic s1 program was selected. Through the use of the test, the researchers were able to identify the exact shape of the device, how to conduct the test, and the reliability of the results obtained. The pre-test was carried out and the curriculum was implemented The training that took (8 weeks) and after completion, the post-test was conducted.

The results of the study were presented and discussed. The most important conclusions were that the exercises of the Cogni Plus had a positive effect on the development of perceptual variables, namely (total field of view - divided attention - visual focus - visual reaction - emotional maturity) among handball referees.

Keywords: Cogni Plus, perception , handball referees

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INTRODUCTION

Sports activities must keep pace with the civilizational and scientific development taking place in the world to develop the level of these games and make them a field for practice and follow-up. The arbitration field of handball is one of the main pillars upon which the game's success is based, as the high physical level of governance is not only sufficient, but the referee should enjoy With a high level of mental processes, including the perception of the surroundings for situations inside the stadium and along the match time, the fact that perception of the ocean is an organized mental process that enables the athlete to understand the outside world surrounding him and adapt to it by choosing appropriate behavioral patterns [1], perception of the ocean from one of the skills Psychological matters that have to do with the level of referee performance and the decisions he makes during matches because this has an effective role in his success in leading matches with the least amount of errors possible. Therefore, the referee must be in the utmost awareness so that he can keep up with fast play and control him. The ability of the athlete to perceive or absorb instances stemming from the surrounding environment and to absorb

them, as well as the ability to process the visual information surrounding him within a field or field of visual perception [2]. As the referee who has good mental abilities can make the right arbitration decisions at any time of the game, meaning that people who have a kinetic sense can achieve skills that others cannot accomplish [3].

Hence the importance of the study is the use of modern technology in the development of handball rulers through the preparation of exercises using Cogni Plus. The problem of the study was demonstrated by the researchers 'lack of focus and lack of continuing on one pace in making the right decisions in difficult matches. It could be the lack of perception of the environment about handball referees since the handball rule moves in most of the time with fast attack and gives decisions about the violations that they spoke here. We find that the movements Spin and run need to realize the ocean in the widest extent. As mental and psychological processes are important and linked to raising the level of handball referees' performance and making the right decisions and continuing healthy decisions throughout the game time, the researchers have used exercises using the Cogni Plus device to develop a perception of the handball referees.

The study aims to use modern technology in developing handball rulers using exercises of the Cogni Plus device and to identify the effect of exercises in developing perception of the handball rulers.

The study hypothesizes that the exercises of the Cogni Plus device have a positive effect on developing perception of handball referees.

METHODOLOGY

The researchers used the experimental method in the one group method to suit the nature and the problem studied.

-Study community:

The study community included first-degree referees in the middle Euphrates accredited within the statements of the Central Iraqi Handball Federation (the Central Referees Committee) for the sports season 2016-2017 and the number (43) of the first-class rule of workers, the mid-referee referees were chosen in a simple random way and the number (13) Ruling (3) rulers were excluded to conduct exploratory experiments on them, as the number of the sample became (10) rulers. Arithmetic circles ranged for perceptual variables, so the mean for the total field of (169.1 ± 1.203), visual focus (49.184 ± 1.14), divided attention (79.381 ± 1.242), and emotional maturity (1.824 ± 0.081) and response time Verb (0.682 ± 0.021).

The test used (PP perception test)[2] :

The researchers adopted the ocean perception test after first-hand knowledge of the Vienna system and its devices, including the perception of the ocean perception, through the use of the literature on the test. The researchers were able to identify the exact shape of the device, how to conduct the test, and the extent of the reliability of the results obtained, and also shows the possibility of applying this test to rulers Handball because the variables measured by the perception of the perception test are (total field of view - divided attention - visual focus - visual reaction - emotional maturity), which is one of the basic requirements and in line with the nature of the handball game and the tasks taken E on the handball rule during the management and arbitration of the matches and his need for these variables due to his movement inside the stadium and also updates the law of handball, which speeds the performance of players in the transition from defense to attack and vice versa, therefore the handball rule must expand their awareness and correct movements and cover the stadium by looking to control all The course of the game.

Specifications of perimeter perception test for handball referees:

Test name: Perception of the ocean

The tools used: an electronic calculator - the Vienna Mental Capacity Test System with the accessory of the system, two arms that contain small LED lights and a foot pedal.

Method of performance: The optical stimulus - which occurs by emitting signals that emerge in the device - will move at the predetermined speed (when changes occur). The critical stimuli that arise during the time-lapse periods are the one that the respondent must interact with by pressing the foot pedal.

Recording: The following variables are recorded (field of vision - visual focus - divided attention - emotional maturity - reaction), test time (15 minutes).

- Pre-test:

The researchers conducted the pre-test for the perception test on Thursday and February 2, 2017, in the unit - Sports Psychology Laboratory at the Faculty of Physical Education and Sports Science - University of Qadisiyah, at exactly (9:00 am), after giving an introductory unit About the device and method of testing.

-Alertness - phasic s1: Exercise used[4]:

- The aim of the exercise: to raise the attention of the trainee to external stimuli.

- The tools used: (Cogni Plus - chair).

-Method of performance:

1- The laboratory sits in the chair in front of the Cogni Plus.

2- We run the program, and several exercises will appear, from which we choose an alert (Alert), where this exercise is divided or classified into several sections, including (s1-s2). They are classifications that indicate the manner of performance, and in which stimuli change from one classification to another.

3- The training time and the level of difficulty can be set, as the training in this exercise contains (18) difficulty levels, and the trainee has time to react during the performance at the beginning (1,8) seconds, but when performing the exercise at difficult levels, the trainee is required to react to a time of (0,3) seconds.

4- We give a start and start the training, as the exercise passes at the beginning of the training with a training stage to identify by the trainee on how to perform and be without counting the number of right and wrong times.

5- Upon the completion of the initial exercise phase, a window appears on the screen with the start of the actual training, and it is required to click on the green button on the keyboard, as shown in the image below in front of the trainee, which begins the actual training after that.

6- The training begins and it is a motorbike on a winding road where the task of the trainee is to monitor the road carefully and when the obstacle or stimulus appears from the side of the road the trainee must press the green button as soon as possible, where if the trainee interacts slowly, the obstacle will disappear or Interesting after a short period and continues training, and if the trainee is late in the role of reaction, there is an emergency stop and exit completely from the training, where the trainee can hear during the performance by loudspeakers on both sides of the device that are connected to the device the noise of the bike and its brakes loudly.

7- Upon reaching the end of the specified time for the exercise, the bike will stop walking and a window will appear in the center of the screen at the end of the exercise.

Recording method: The device begins calculating the number of correct pressure times in the actual performance that the trainee performed and the number of wrong pressure times that he also performed, which appear at the end of the training and according to the trainee's desire

-Training curriculum:

The researchers applied the training curriculum to the sample, using the computerized training and qualification program within the (Cogni Plus) system. (Alertness - phasic s1) was chosen from among several programs within this system, where the researchers controlled the level of difficulty and time of training in the exercise during the sessions To suit the training status of the referees through the sequence of training from the easy levels to the difficult levels, with increasing the time for the easy level and reducing the time for the difficult level, the maximum time for one exercise in the first week (15-30 minutes) was determined by (3 - 5 days) per week, Took the training curriculum (8 Weeks) where the first session was held on Saturday and February 11, 2017, at nine in the morning, the last session was on Tuesday and April 6, 2017.

-Post-test:

- The post-test was conducted to measure the level (perception of the ocean) according to the Vienna test system on the study sample, on Thursday, 4/8/2017. Hour (9:00 am) in the study unit - Sports Psychology Laboratory in the College of Physical Education And Sports Sciences - University of Qadisiyah. The researchers have followed the same procedures and steps mentioned above, which were done in the tribal tests.

- Statistical means:

Use the SPSS statistical bag to extract the results of the related t-value.

RESULTS

Table (1)Shows the mean, the standard deviations, and the value (t) of the perception test

Description	Group 1		Group 2		t	P
	Mean	SD	Mean	SD		
The Total Field of Vision	169.1	1.203	173.3	1.113	7.741	<0.05
Optical focus	49,184	1.14	52,830	1,020	6,290	<0.05
Divided attention	79,381	1,242	83,642	0.924	8.483	<0.05
Emotional maturity	1.824	0.081	1.332	0.031	19.431	<0.05
Reaction time	0.682	0.012	0.644	0.012	7.241	<0.05

In light of the extracted data, the table shows (1) the arithmetic mean, the standard deviations, and the value of the values of the perceptual variables, the value of t for the total field of view variable (7.741), and the value of t for the optical focus variable (6.290), while the value of t for the attention variable Divided (8.483), while the value of t for the emotional maturity variable (19.431), while the value of t for the reaction time variable was (7.241) and the value of the level of significance (P) was (0.05>), then, the difference is significant for the values of the perceptual variables between The pre and post-tests for the post-test sample.

DISCUSSION

The results of the pre and post-tests, as in Table (1), indicate that there are statistically significant differences between the pre and post-tests and in favor of the post-test. That is, the perception of the ocean has evolved significantly through the exercises used in response to the need for the referee and the requirements of the work he is doing inside the stadium, as he must have a perception of what surrounds him well and according to the duty assigned to him as a referee for a field or goal referee, and researchers see that the possession of the rule in the field of vision Ideal as a result of standing in the right place and seeing it to all the variables in the position of responsibility will lead to dealing with the situation and the positions of play in a way that requires the situation in a non-influential way, for not seeing all the players and whistling at the time that the ball came out with the handling of a player who was subjected to a violation to a player in A place has a chance to trick Yale has wasted this opportunity whistle goal and cut the benefit of the team, he said the field of vision of the ideal governance contributes to the identification and seeing all the players in the responsibility and help achieve and enforce the law optimally. The visual sensory system delivers complete information about the surrounding environment and helps the athlete distinguish the interconnected materials present in the place, the distance between the ball, goal, direction, ball speed, and opponent movement (perception of perimeter) [5].

The researchers see that the visual focus is one of the important ingredients that should be ideally found by handball rulers because the decision in the handball game requires the referee to take parts of a second and issue the decision according to the case and the referee reaches this ideal stage of the process of giving the correct decision when it is of a high level In the visual focus on active play and watching the strikes between players. In the sense that the referee, no matter what the ideal level of readiness in all respects, may not reach the appropriate decision unless his visual focus of the periphery of the field of play is high.

The nature of the handball referee's work requires him to pay attention to many stimuli inside the field, which requires him to have an ideal level of divided attention enjoyed by the referee because the nature of handball, which depends on the handling of the ball from one player to another and the occurrence of frictions between players wherever the ball goes And sometimes without a ball, so the referee must be fully prepared to transfer his attention to more than one exciting on the field to ensure that I deal with the various cases that happen on the field in more than one place. That the individual can, through divided attention, perform several tasks simultaneously by dividing his attention between these tasks [6].

Through the results presented and analyzed in Table (1), it was found that the study sample has a high level of divided attention and this corresponds to the mental and psychological characteristics of handball referees and the ability to divide

their attention into multiple stimuli and perceive the surrounding events, which enables them to make appropriate decisions. Individuals with a high ability to divide their attention on more than one stimulus and perform several tasks at the same time enjoy high ambition and self-confidence, and tend towards achieving distinctive performance, and ensuring accuracy in the performance of activities in an elaborate manner, as well as a tendency to pay attention to details and accurate particles in the administration E [7].

The results of Table (1) show that there is a noticeable improvement in the level of emotional maturity in the post-test from the pre-test, and the researchers attribute this improvement to the effect of the exercises that the sample trained in within the Cogni Plus system. The emotional maturity is a result of the variables faced by the individual as the judgment Exposed to great pressures and emotions due to the type of game and the force of friction between players to score goals, and emotional maturity varies from one individual to another with different individual differences [8], that signs of emotional maturity are the ability to exercise self-control in situations that provoke emotion, i.e. the distance from recklessness and excitement [9]. Researchers believe that the referee has to be in control of the level of his emotions because the referee is subject to many pressures and the atmosphere differed in the matches so as not to lose his focus and affect the accuracy of decision-making.

The researchers attribute that the reason for the development of the level of emotional maturity to the exercises of the Cogni Plus system and the presence of the desire of the sample to practice training within this system and the development of awareness, awareness and the ability to control emotion to achieve progress in their level all of this helped them in developing their emotional maturity.

Also shown in Table (1) is a clear improvement in the level of the reaction of the referee in the post-test from the pre-test. This indicates that the sample has improved its reaction, as the response is one of the important things that the referee should enjoy and because decision-making requires the judgment By taking the second parts, he must enjoy a high and moderate reaction to the violations that occur during the matches, and the researchers attribute the reason for the development of the reaction in the study sample is the exercises used by researchers within the Cogni Plus system, which is characterized by its focus on this component according to the nature of its work.

The researchers see that perception of the ocean and a sense of the stimuli surrounding the referee are mental processes characterized by the identification of stimuli that exist in the stadium, which distinguishes the referee is its high ability to perceive the outside environment in the stadium, that is, what surrounds it with stimuli, whether these stimuli (players or place of the ball or a mastaba Substitutes or an external factor entering the field of play and linking them to the law of the game) and doing a reaction to the violations that occur on the field according to the law of handball through the sense of sight or a very little sense of hearing with the ability to judge the correct interpretation of the type of event that occurred inside the field of play and give an explanation or The appropriate decision, according to the case and the referee who possesses these mental advantages and the ability to correct interpretation is the least judgment of errors capable of managing matches, whatever their levels and strengths.

The reason for the evolution of the sample level is that the exercises used to focus on developing perception of the environment in isolation from any exotic variables, which makes the judgment expand the field of vision or create a clear and ideal angle of view by choosing the correct stopping place and the correct movement to cover the lateral area of it. These exercises also provide similar conditions (In terms of the idea) to perceive the ocean and this is called environmental interference, as the high practice of environmental interference results in higher retrieval and transmission of the effect of learning better [10], that the increase in exercise in situations similar to the perception of the ocean makes responses strong the more the exercise And this m It provides training law that the greater the position with a certain tendency in response to the link this position to call this response strengthens the future [11].

CONCLUSIONS

- 1- That the exercises of the Cogni Plus had a positive effect on the development of perceptual variables, which are (total field of view - divided attention - visual focus - visual reaction - emotional maturity) among handball referees.
- 2- The field of vision, reaction speed, and divided attention have a role in the speed of decision-making among the rulers of handball, and this is due to the exercise used and the level of difficulty that exceeds the level of play.
- 3- The use of modern technologies such as the Vienna test system for psychological measurement and diagnosis, and the Cogni Plus system for psychological training and working with them together helped to obtain accurate and true results of the study variables.

RECOMMENDATIONS

- 1- The necessity of the referees 'central interest in handball and the referees' subcommittees in referees and the intensification of training courses related to the psychological aspect, which makes referees always ready in terms of the psychological aspect

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