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The effectiveness of exercises using the Cogni Plus device to developing attention, intelligence, and awareness of the environment among first-class basketball referees

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Abstract

The research included the introduction and the importance of the research: The importance of using modern systems in developing first-class football referees, including the Cogni Plus system, was discussed. The research problem was developing attention, intelligence, and awareness of the surroundings of basketball referees. The goal of the research to identifying the effect of the (Cogni Plus) device in developing (attention, intelligence, and awareness of the surroundings) of first-class basketball referees in Al-Qadisiyah Governorate. The hypothesis of the research is that the (Cogni Plus) device has a positive effect in developing (attention, intelligence, and awareness of the surroundings) of first-class basketball referees in Al-Qadisiyah Governorate. It also included the research methodology and field procedures, as the researchers used the experimental method and touched on the research sample, who are first-class basketball referees, and touched on the tools used in the research, the test used, and statistical methods. Then, the results of the research were presented and discussed. The results were presented in the form of tables and then discussed. The research also contained conclusions and recommendations, and the most important conclusions were: The CogniPlus system had a positive effect in developing attention, intelligence, and awareness of the surroundings among first-class football referees.

Keywords: Cogni Plus system - attention - intelligence - perception of the environment

Introduction

Sports events must keep pace with the cultural 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 refereeing field in football is one of the basic pillars on which these sporting events are based, as the high physical level of the referee is not only sufficient, but also the refereeing. He must have the level of attention, intelligence, and awareness of the surrounding situations on the field of play, since attention, intelligence, and awareness of the surrounding are among the psychological skills that are related to the level of the referee's performance and the decisions he makes during matches, because this has an effective role in his success in leading the matches as little as possible. Of mistakes. Therefore, the referee must be extremely attentive so that he can keep up with the fast play and control it.

Hence the importance of research into using special exercises using the Cogni Plus device to develop attention, intelligence, and awareness of the surroundings among basketball referees.

Research objective: Identifying the effect of the (Cogni Plus) device in developing (attention, intelligence, and awareness of the environment) for first-class basketball referees in Al-Qadisiyah Governorate.

Research hypotheses: The Cogni Plus device has a positive impact on developing (attention, intelligence, and awareness of the surroundings) of first-class basketball referees in Al-

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Methods and procedures

Sample: The research community included the referees of the first division of the Premier League accredited within the rosters of the Central Iraqi Basketball Federation for the

2022-2023 sports season, who numbered (8) referees who lead the matches of the Premier Division of Basketball. All referees were chosen as a sample for the research using a comprehensive inventory method, and their number was (8) referees. The researchers homogenized the sample regarding the variables under study, as shown in Table (1).

Table 1: Homogeneity of the research sample members

N	Variables	Mean	Std. Deviation	Difference	Sig
1	Number of hit	73.600	1.020	1.386	Homogeneity
	Number of incorrect positives	32.100	1.972	6.144	Homogeneity
	Reaction time to hit	0.801	0.048	5.973	Homogeneity
	The ability to discriminate	0.730	0.058	7.988	Homogeneity
	Answer tendency	0.034	0.005	14.409	Homogeneity
	Work time	2.460	0.069	2.799	Homogeneity
2	Functions of verbal intelligence	0.78	0.09	11.54	Homogeneity
	Numerical intelligence functions	1.72	0.32	18.61	Homogeneity
	Long-term memory	0.71	0.06	8.45	Homogeneity
		1.05	0.28	26.67	Homogeneity
3	Total field of view	167.6	1.21	0.72	Homogeneity
	Optical focus	49.19	1.14	2.32	Homogeneity
	Divided attention	79.38	1.24	1.56	Homogeneity
	Emotional maturity	1.82	0.09	4.95	Homogeneity
	Reaction time	0.68	0.02	2.94	Homogeneity

Study design

The researchers used the experimental method in a one-group manner to suit the nature of the problem studied.

Variables studied

The CogniPlus device

The computer-based CogniPlus device produced by the Austrian company Schuhfried GmbH is one of the most important psychological laboratory devices. It is also considered one of the leading global procedures in the field of training and qualification of cognitive abilities supported by computers. Computerized Training of Cognitive Abilities has been developed. With the latest computer technology available to help effectively train and qualify many perceptual and cognitive functions, and using multi-media technology, which is also a software package that relies on information and solid scientific foundations, this device (with training programs close to reality) also helps in applying Various successes achieved in daily life. It can also be easily linked to the Vienna VTS testing system in order to create a scientific link between diagnosis, treatment and evaluation. This device was designed to cope with all levels and also gives an evaluation at the end of each training session so that the laboratory can know the level of development achieved through the device.

Attention: It is the mental or cognitive process that directs an individual's awareness towards perceived objects. Or it is the process by which our perception of information is directed to become accessible to the senses. (2:165)

Tests used

(Attention Test): Continues visual recognition Task (FVW) form D: (9: 108)

The researchers chose the attention test after directly examining the Vienna system and its devices, including the attention test. By making use of sources for the test, conducting personal interviews, and direct inquiries, the researchers were able to accurately identify the test, how the test was conducted, and the extent of the credibility of the results obtained. The researchers also found out the variables.

What the attention test measures is (number of hits, number of incorrect positives, reaction time, ability to distinguish, answer tendency, action time), this test is carried out with the help of a computer, which gives high objectivity to the test administration, as the automatic calculation of the variables measured in the test leads to high objectivity in the evaluation. It also ensures that we save effort through automated computerized presentation, and that this test has an advantage over paper-and-pencil tests in obtaining objective results. High.

Test description

The test consists of a group of pictures of objects, numbers, words, clips, or drawings, which show the stimuli either once or twice, and the tester must make a decision by pressing the red button or the green button on the keyboard, as in picture (8). The testing phase begins as soon as the tester presses the green button. The program begins displaying the items one after the other, and only one item per screen page. During the test, (210) shapes are displayed, and the tester must decide whether the item is (new or old).

Test duration

The time required for the test is (15) minutes (including the instructions and the exercise phase) which means that the training time is (5) minutes and the actual test time is (10) minutes.

Peripheral Perception Test: (PP): (9:74)

This test is conducted according to the Vienna testing system, where the tester sits at a distance that the sensor senses, as shown in the following image, where the tester cannot be more than 60 cm away from the screen.

How to conduct the test

The test is in the form of two parts at the same time, where the tester appears on the screen in front of him with a ball moving horizontally, right and left, and the tester must move the circular frame so that the ball is inside it as much as possible, by matching the movement of the ball with his movement of the circular frame by using the socket on the

keyboard of this Vienna System. Concerning the first section. As for the second section, which is through the presence of lights that move regularly for the system, and for the laboratory, their movement is random. Here, the laboratory is required to focus on maintaining the ball's proximity to the circular frame on the front screen, and at the same time, as soon as the lights appear in a straight line on the side arms. In the system, the tester is asked to press his foot on the pedal in the direction where the lights appear in the form of a straight line, where there are two pedals under the tester's feet, one with the letter L in English, which represents the left arm. The other pedal has the letter R on it in English, which indicates the right side when the lights appear in a straight line on the right side.

Basic intelligence functions test): (IBF) (9:65)

It is one of the tests provided by the Vienna testing system, and the method of working and performing the test can be explained as follows:

The tester sits in front of the screen in the Vienna testing system, and then instructions on how to perform the test and a simplified explanation of what is required of him appear in front of him. The test takes place after examples are presented to the tester so that he can know how to perform, as he has sentences in front of him that contain a blank, and the answer to this blank is from a set of choices. The laboratory chooses the appropriate answer by pressing the number on the system's keyboard that is the same number as the choice

After the laboratory has passed a set of test items, the tests begin to increase in difficulty, and the program begins by displaying mathematical equations or a group of goods, their specifications, prices, country of origin, and various crops and products. Then after that, the program begins asking questions about the prices, origins, or specifications of these products and goods that the program mentioned above. The laboratory may be asked previously, or the laboratory may be asked to calculate the price of more than one product along with some of the items, which increase in degree of difficulty as the laboratory progresses through the test items.

Forms of the test: There are two forms of the test:

S1 is the default format and its duration ranges from 45 minutes to 60 minutes

S2 is the easy and short form, lasting from 30 minutes to 45 minutes

The sub variables dependent on the intelligence test are as follows

1. Verbal intelligence
2. Digital intelligence
3. Spatial visualization
4. Memory

Pre-test

On Sunday, April 2, 2023, at precisely 9:00 a.m., at the sports psychology lab of the College of Physical Education and Sports Sciences - Al-Qadisiyah University, the researchers administered the attention test's pre-test following an introduction to the apparatus. And how the exam was administered.

Exercises used

Selective Attention Exercise (SELECT-Attention S3) (1: 23)

The goal of the exercise: the ability to respond quickly to relevant stimuli.

Used equipments

- Cogni Plus device.

- Chair.

Forms of training

The SELECT training program consists of three training models:

1. Training format (S1): Selective attention is trained based on the visual method (shapes appear in the tunnel).
2. The training format (S2), which is the auditory format, in which the trainee's task is to respond to the relevant sounds.
3. Training format (S3): The trainee's task is to respond to a set of specific stimuli (shapes that make specific sounds) (audio-visual).

Performance method

1. The tester sits on a chair in front of the Cogni Plus device.
2. We run the program, and several exercises will appear from which we choose the (SELECT) exercise. This exercise is divided or classified into several sections, including (s1-s2-s3), from which we choose (S3), which is the appropriate exercise for the nature of the variable being investigated.
3. The training time and difficulty level can be adjusted, as the training in this exercise contains (15) difficulty levels, and the trainee has a reaction time during the performance at the beginning (1.8) seconds, but when performing the exercise at difficult levels, the trainee is required to react in a time of (0,3) sec.
4. We give an instruction (start) and the training begins. At the beginning of the training, the exercise goes through a training phase for the purpose of getting the trainee to know how to perform, without counting the number of correct and incorrect times, as well as to get to know the type of object that requires the trainee to respond to it when its image appears and also To recognize his voice, as shown in picture (1).



Fig 1: shows the stage of giving instructions on how to perform

Upon completion of the initial training phase, a window appears on the screen indicating the start of the actual training, and we are required to press the green button on the keyboard.

Instructions for getting started with the actual training of the Selective Attention Exercise (SELECT-Attention S3)

The training begins with the trainee traveling in a tunnel using a mine car, and suddenly relevant stimuli appear from the darkness in a different form (visual, auditory, or audio-visual), and the trainee's task is to respond only to the relevant stimuli (the trainee must respond only when the form to be responded to appears His and his voice.)

A sound and a red lit sign will display on the screen if the trainee reacts wrongly to an irrelevant stimulus. Negative feedback will come in the form of a thunderous and lightning storm if the student replies slowly or not at all to a relevant stimulus. During the performance, the trainee may hear the loud noise of the cart, other significant noises, and the sound of the object to which he must reply through speakers on both sides of the device that are attached to it. Image (2) shows the exercise.



Fig 2: Shows the SELECT-Attention S3 exercise

Rotation exercise (ROTATE): (1: 59)

Objective of the exercise: Rotation trains the ability to form a three-dimensional mental image of something photographed in two dimensions and to manipulate the image by changing perspective or rotation (mental rotation).

Used equipment's

- Cogni Plus device.
- Chair.

Exercise theory

Current theoretical models of this ability area assume that the process of solving mental rotation problems involves four stages.

Preparation and task

The ROTATE training programme exposes the learner to things that need to be compared in three dimensions with reference photographs. There are two kinds of tasks available in turn.

1. The learner sees an item on the right side of the screen surrounded by cameras in the shifting perspective challenges. He needs to choose the camera from which the image on the left of the screen was taken.
2. Tasks that rotate are comparable. In this instance, the object may be rotated in space using the symbolic axes of rotation (often known as "rotation bars") displayed on the screen. To build the reference image, the client must indicate which axis must be utilized to rotate an object.

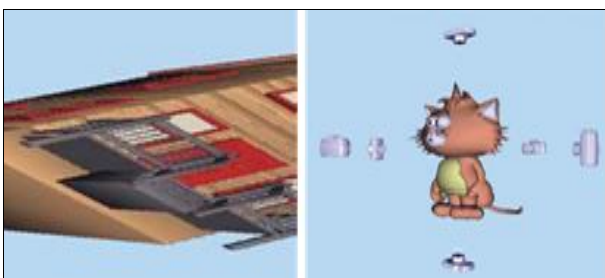


Fig 3: Kingspan roof tile and realistic orange cat 3D model

Complexity structure

The primary method of varying complexity throughout the levels is to alter the subsequent mission attributes:

Complexity in the texture of objects

1. Rotational direction and angle.
2. Positional complexity of the object
3. The intricacy of the coordinate system including rotating rods or cameras.

The training programme makes use of a variety of items (such buildings and cartoons). Enhancing the trainee's desire to train and ensuring the learned cognitive skill can be properly generalised are the goals of employing a variety of practise resources.

Attention Exercise: Alertness (ALERT): (1: 15)

Purpose of the exercise

The ALERT training programme develops awareness and attentional dimensions, or the capacity to momentarily focus and sustain attention.

Exercise theory

Phasic alertness is engaged when a warning signal momentarily raises the focus of attention. If arousal happens in the absence of dialectics, intrinsic awareness is necessary for the state. Increasing intrinsic alertness is the aim of mindfulness training, as only in this situation is arousal fully under control. Nevertheless, enhancing phasic alertness must come first when there is an alertness deficit, and only then can endogenous alertness be addressed.

Setting and mission

Motorbike riding on a narrow path. The trainee's job is to keep a close eye on the section of road in front of him and to respond as fast as possible by pressing the response key when problems arise. If the student responds in time, the motorbike will slow down and the obstruction will vanish, allowing the rider to continue. There is a "emergency stop" if the response takes longer than expected. The motorbike brakes violently, comes to a halt, and a yellow exclamation point shows on the screen.



Fig 4: Cognitive training modules

Forms of training

There are two types of training offered by the ALERT programme.

Externally created obstacle poses in the S1 training style draw the trainee's attention, followed by auditory and visual warning messages.

Both the visual and audible warning signals are absent from

training form S2. The motorbike then passes through a pitch-black nighttime landscape where obstacles materialize out of nowhere.

Complexity structure

There are eighteen difficulty levels in both training courses. Reducing the maximum permitted response time raises the difficulty level. At the lowest level, the trainee has 1.8 seconds to respond to any hazard; at the highest level, the time between an obstruction suddenly appearing and emergency braking is as short as 0.3 seconds. During the first session, the client's initial response speed is evaluated and a skill-appropriate difficulty level is set. This makes sure that the training programme is appropriately tailored to the trainee's ability level right away and that it isn't too hard or too easy for him.

Training curriculum

The researchers applied the training curriculum to the sample by using the computerized training and rehabilitation program within the (Cogni Plus) system. The Select s3 program, the (ROTATE) program, and the (ALERT) program were chosen from among several programs within this system, as the researchers controlled the level of The difficulty and training time of the aforementioned exercise during the sessions to suit the training status of the referees by sequencing the exercise from the easy levels to the difficult levels while increasing the time for the easy level and decreasing the time for the difficult level. The maximum time for one exercise was determined in the first week and during the first sessions based on experience. The researchers conducted the survey on the survey sample, and their average time was taken, which was (20) minutes, "Some researchers have indicated that the

maximum period should not exceed five minutes, and that a short period does not affect the level of performance, and there are those who have indicated that the training period ranges between (one minute to twenty minutes), as well as between one attempt and up to thirty attempts." (3:173). Osama Kamel Rateb indicated that it is preferable for the dose of psychological skills training to range between (15 - 30) minutes and (3-5) days a week (4: 101), where the first session was conducted on (Sunday), April 9, 2023, at nine in the morning. The last session was on Wednesday, June 21, 2023.

Post-test

This post-test on attention was administered on Thursday, June 29, 2023, at 9:00 a.m. in the research unit, Sports Psychology Laboratory, in the College of Physical Education and Sports Sciences at Al-Qadisiyah University. It measured the research sample's level of attention based on the Vienna test system. The identical protocols and actions that were taken in the pre-tests were repeated by the researchers. In terms of the auxiliary work team, time, location, and tools and equipment utilized in the pre-tests, the researcher was also eager to commit to, offer, and develop all the necessary circumstances and capabilities.

Presentation, analysis and discussion of the results

Presentation, analysis and discussion of the results of basketball referees' attention

In order to identify the variable of interest, the researcher presents the results of the statistical parameters with arithmetic means, standard deviations, mean differences, the calculated T value, and the error percentage, as shown in Table (2).

Table 2: shows the means, standard deviations, and the (t) value calculated for the attention test

Tests	Measuring unit	Pre-test		Post-test		t value Calculated	Sig level
		Mean	Std. Deviation	Mean	Std. Deviation		
The number of hits on the correct button	Number	72.4	1.03	75.8	2.81	2.856	0.018
Number of incorrect positives	Number	32.2	1.98	26.4	1.37	6.64	0.000
Reaction time to hit	Time	0.82	0.05	0.66	0.03	7.43	0.000
The ability to discriminate	Degree	0.74	0.06	0.89	0.05	6.27	0.000
Answer tendency	Degree	0.04	0.01	0.06	0.02	6.05	0.000
Work time	Time	2.5	0.07	1.74	0.32	6.97	0.000

In light of the data extracted for the research sample members, Table (2) shows the differences in the values of the attention variables in the pre- and post-tests. As shown in the table above, the nature of the research sample members showed differences between the pre- and post-tests for the research sample members.

The researchers believe that the nature of the exercise used within the Cogni Plus system, which focuses on each type of attention (auditory attention and visual attention), has an effective impact on the development process.

The individual is affected by many forms of stimuli that emanate from the same source. For example, "When someone is sitting in a lecture, the lecturer's voice is one stimulus and the lecturer's image is another stimulus" (5: 95).

As a result of this division and distribution of stimuli, the process of fixing them was facilitated by the sample members, and as a result of continuing these exercises and integrating the stimuli (audio and visual), it led to an increase in the level of attention span. This is confirmed by (Muhammad Lutfi) "the individual's ability to direct his attention towards more than one stimulus at the same time or to direct His attention

towards assimilating and understanding more than one piece of information from different sources at the same time" (6: 20). Muhammad Hassan Allawi noted, "The athlete has the ability to quickly direct his attention from one stimulus to another" (7: 285).

As a result of the basketball referee's need to pay attention to more than one stimulus, and the fact that the nature of the referee's work context requires him to do so, while leading the match, he is required to pay attention to all members of the two teams present inside the field of play, focus on the nature of the game, and monitor the errors that occur in the game. There are violations that occur during the game. Play and there are also verbal violations that occur in another aspect, away from effective play, which requires the referee to be fully prepared in receiving more than one stimulus and different types of stimuli, whether (audio or visual) and to pay attention to them well and quickly for the purpose of correct behavior and decision-making. Appropriate according to the situation. As a result of this need, there are acquired tendencies among basketball referees to develop their attention, and as a result of the researchers' reliance on the

gradation in attention stimuli from visual to auditory stimuli and from auditory to visual stimuli, this has led to the development of attention. Ahmed Oraibi Odeh pointed out that one of the factors that have an impact on the development of attention is the intensity of attention, as he showed that the greater the intensity of the stimulus, the more it attracts the individual's attention to it, and also the repetition of the stimulus, as he showed that repeating stimuli several times brings the individual's attention to this stimulus. He also changed the alarm clock, as he indicated that whenever sudden changes in the surrounding things bring and draw attention to them, he also indicated that the contrast of things that differ greatly in their shape or size will attract the individual's attention to them, (8: 203) and this applies to the exercises used before. The researchers, within the Cogni Plus system, with what Ahmed Oraibi Odeh pointed out in the mechanism of developing attention in individuals. The researchers attribute this development in the level of attention among football referees to the accuracy of the

exercises developed within the Cogni Plus system in developing attention within the curriculum prepared by the researcher through the Cogni Plus system, which led to the development of the level of attention among the referees. Continuing performance during the curriculum applied by the researchers leads to the optimal level by continuing training during exercises and working to use auditory and visual attention according to the nature of the exercises and according to the nature of the basketball referees' work and their needs to develop these aspects of attention. Also, the nature of the Cogni Plus system's work, the accuracy of the results it extracts, and the suitability of the exercises that are close to reality and suitable for trainees using it, as Shuhfried pointed out, "The use of the Cogni Plus system's training programs is at all levels and capabilities." (1)

Presentation, analysis and discussion of intelligence results for basketball referees

Table 3: shows the arithmetic means, standard deviations, and (t) value calculated for the pre- and post-tests of intelligence

Tests	Pre-test		Post-test		t value Calculated	Sig level
	Mean	Std. Deviation	Mean	Std. Deviation		
Functions of verbal intelligence	0.78	0.09	1.43	0.13	3.64	Sig
Numerical intelligence functions	1.72	0.32	2.51	0.07	2.19	Sig
Long-term memory	0.71	0.06	1.06	0.28	3.09	Sig
Imagine	1.05	0.28	1.52	0.11	2.34	Sig

The results of the pre- and post-tests, as shown in Table (3), indicate that there are statistically significant differences between the pre- and post-tests, in favor of the post-test. As a result of the basketball referees' need resulting from the duties and requirements of the work he performs on the court, he must have high intelligence in order to assist him in many of the tasks he performs. Researchers believe that basketball referees having appropriate intelligence enables them to take the correct position and thus will deal with. Different situations with high intelligence and according to what the situation requires of issuing judgments or calculating points, and the more intelligent the referee is, the greater his contribution in revealing and knowing the matters surrounding him and thus ensuring control over the course of the match in the best way.

Mufti Ibrahim 2000 states that intelligence indicates the outcome of all mental activity and is considered a general mental ability that helps the individual confront new situations and solve the problems he faces. In general, an intelligent individual is one who is able to diversify his

behavior and change it whenever circumstances change. A basketball referee, by nature, needs to behave well in different situations. Choosing the appropriate place to stand and see the movement of all players clearly and easily without the need for advice often saves the referee effort and saves him. Accuracy in decisions in some situations, such as shared balls, as exaggeration in performance may result in losing the ball, causing it to go to the opponents (10: 23).

Abu Hatab Fouad points out: "The visual sensory system conveys complete information about the surrounding environment and helps the athlete distinguish the interconnected materials present in the place, the distance between the ball and the target, the direction, the speed of the ball, and the movement of the opponent" (11: 122). Moataz Yunus states, "Deficiency in intelligence does not help us develop a state of complete preparation" (12: 97).

Presentation, analysis and discussion of the results of the surrounding perception of basketball referees

Table 4: shows the pre- and post-test results of the surrounding perception of first-class football referees

Tests	Pre-test		Post-test		t value Calculated	Sig level
	Mean	Std. Deviation	Mean	Std. Deviation		
Total field of view	167.6	1.21	172.5	1.12	7.74	0.000
Optical focus	49.19	1.14	52.85	1.02	6.29	0.000
Divided attention	79.38	1.24	83.7	0.92	8.48	0.000
Emotional maturity	1.82	0.09	1.33	0.04	19.43	0.000
Reaction time	0.68	0.02	0.64	0.02	7.24	0.000

Discussion

There are statistically significant differences between the pre- and post-tests, favouring the post-test, according to the results of the tests, as shown in table (4). As a result of the referee's need and the requirements of the work he performs on the field of play, he must have an ideal awareness of what surrounds him. Researchers believe that the referee's

possession of an ideal field of vision puts him in the correct position and thus this will lead to dealing with the situation according to the law and according to what the situation requires. The referee's ideal field of vision contributes to revealing and knowing the surrounding matters and thus ensuring control of the match.

(Sabah Reda *et al.* 1991) [12] stated, "The limited angles of the

eyes will affect the decision-making process and control of surprise,” and also that the type of game has an impact on the level and breadth of vision, such as basketball (13: 369).

Experts in this field point out that playing sports is compatible with using sensory information, 85% of which originates from the path of sight. As a result, the folds of one's field of vision and the corners of one's eyes carry a variety of information that affects every skill in sports generally.

(Mahmoud Abdel Mohsen Naji) pointed out, “Sight is a treasure for raising the energy of athletes, and the sense of sight has an important role in education and training, by presenting models to the learner and trainee so that he has a picture of the movement and tries to reach it.” (14:65).

Abu Hatab Fouad points out: “The visual sensory system conveys complete information about the surrounding environment and helps the athlete distinguish the interconnected materials present in the place, the distance between the ball and the target, the direction, the speed of the ball, and the movement of the players (perception of the surroundings)” (11: 122).

Researchers believe that visual focus is one of the important characteristics that must be ideally present in basketball referees, because the decision in the game of basketball requires fractions of a second from the referee, and the decision is issued according to the situation, and the referee reaches this ideal stage in the process of giving the correct decision when he is of a high level. In visual focus on active and effective play and catching violations that occur between players.

Conclusions and recommendations

Conclusions

1. The CogniPlus system had a positive impact in developing attention, intelligence, and awareness of the surroundings among basketball referees.
2. By utilizing contemporary technologies, such as the CogniPlus system for psychological training and the Vienna test system for psychological measurement and diagnosis, real and accurate results were obtained for study variables that are challenging to measure with the same credibility and accuracy using more conventional methods than those used in the past.

Recommendations

1. The need for researchers to use computers and modern techniques, as represented by them, when conducting psychological tests because these methods are more accurate, credible, and yield real results than older approaches like paper-and-pencil tests, which are less accurate than results from modern techniques and means.
2. Using the CogniPlus system in psychological tests that develop most psychological variables such as (attention, perception, intelligence, reaction) and other mental processes.
3. The need for the Central Football Referees Committee and the sub-referees committees to pay attention to the referees and intensify training courses related to the psychological aspect, which makes the referees always prepared in terms of the psychological aspect.

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