

THE INFLUENCE OF MENTAL EXERCISES IN DEVELOPING SOME INTELLECTUAL ABILITIES FOR FIRST DEGREE REFEREES IN FOOTBALL

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Abstract

The current study aims to use specialized mental exercises to develop some Intellectual Abilities for the first degree Referees in football. Instead, knowing their influence in the study's variables. Through this paper, remarking and field experience and because the researchers are football referees, they found many refereeing mistakes during the process of leading football games, which are related to the intellectual variables. While the Researchers assumed that some of the specialized mental exercises have a positive impact in developing the some intellectual abilities of the first degree referees in football. There are statistic significant differences between the pre-post tests for the experimental and control groups in developing the variables of the study. The researchers have used the experimental approach that includes two efficient groups for its compatibility to the study. The test was applied equally regarding the study's variables that include some intellectual abilities (focusing attention, kinematic process, Bio-mechanic recognition and mental imagery). However, the mental exercises were applied for 8 weeks in as much as 3 units' per-week. After the post-test completion and the statistic treatment through SPSS, the main results were; the experimental group be dominant on the control group in all under study tests in post-test which refer to the mental exercises effectiveness. Considering the mental aspect will contribute greatly on the recognition aspect, and both reflect the development and improving the referees performance. The mental exercises are considered a very important and assistant method to learn some of the main tasks for the referees to support the performance level in general.

Keywords: Football. Mental exercises. Football referees

Introduction

The world concerned the football game and develops it because it is popular and simple to be exercised, and also it is an entertainment game most of the people of different classes prefer to exercise and see it. We notice that the International Football Federation and other National Unions are working out to be in the peak, upgrade and advance the game. The mental abilities (focusing attention, sensory-kinetic perception and mental imagery) are considered one of the psychological skills that are related to the kinetic performance. Focusing is

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considered one of the attention's important components which have an active role in preparing before doing performance specially the one that determines decisions. This can be applied on the referees' performance level, and enable them to lead the game with less mistakes. So the referee has to be aware for anything surrounding him in playing field such as the ball and players actions, in order to be effective and control the game mentally and physically. The Kinesthetic and sensory perception has a great importance on the referees' performance level through feeling the parts of their body, and how to control the body's positions change in the light of movement duty requirements. Also, their feeling of actions through sight and the perception of good action to make the correct decision. From this point, we can remark the Kinesthetic and sensory perception importance in refereeing the football games, because the muscles that participate in any movement need a certain force for the kinetic performance to feel effort and strike speed and balance. Regarding the players different positions, playing with slow and speed mode, following different styles and the continuous changing in players positions during the game to apply the game different plans, all these issues need to be focused by the referees, and they should have a mental imagery for all events and facts that will happen during the game, in order to make the correct decisions. The football game is related with some perceptions (sensory-kinetic perception), which can be developed by the referees through learning and training. Some of the perceptions are; time perception, distance and place. The referee has to be accurate during the kinetic performance, and this will create correspondent between his signals and movements. The importance of this study lies in using the specialize mental exercises in developing some intellectual abilities for the first degree referees in football game for better enhancement and improving the performance level, that finally will affect the leading ship of the game.

The researchers of the current paper are referees, and they remarked the refereeing mistakes during the process of leading games, which are related to intellectual variables. The refereeing has a certain requirements, and the most important thing is to complete the game punctually to reserve his mental and intellectual capabilities. Since, these variables are decreasing remarkably with time and this will cause less focusing and affect kinetic –sensory perception (The correct interpretation for these mistakes), which can effect on the

referees' performance level for the disability in making right decisions by the first degree referees in football game, and that will reflect a big area during the referees performance assessment in the games results.

Regarding the mentioned above, many researchers used the specialized mental and intellectual exercises for the first degree referees in football game based on new and modern framework that is correspondent with the game development to set a scientific and correct solutions. With this, the researchers have contributed to rehabilitate and develop the first degree referees to a better performance level, and this will contribute to support them during the matches leading ship.

The goal of this paper is to identify the consequences of using the specialized mental and intellectual exercises to develop some mental abilities for the first degree referees in football. The hypotheses used in this paper are; the mental exercises have a positive influence in developing some intellectual abilities for the first degree referees in football. Also, there are statistic significant differences between the pre-post tests for the control and experimental groups in developing some intellectual abilities for the first degree referees in football for the benefit of the experimental group.

Methodology and Field Procedures

Methodology

The experimental methodology with two equal groups having pre-post-tests was used because it is proper to the problem's nature.

Research community and sample

The researcher has determined the research community of the first degree referees in wasit province. Those referees are working in the Iraqi federation of football for the season 2019-2020. The number of referees is 24. The researchers have selected the research sample randomly (lottery). The 20 of referees were selected for the main experiment, who represent %80 of the original research community, and they were divided into two groups, the first one is called experimental group that includes 10 referees, and the second

one is the control group that includes 10 referees. Ten referees were selected for the exploratory experiment and they represent % 20 of the research community (Tables 1&2).

The Equality of paper's groups

The equality between the control and experimental groups were made by the researchers as shown hereunder in table 3 (Table 3):

The used means, devices and tools in the Research

The researchers have used the following means, devices and tools:

Research's tools

The researchers used the following tools:

a-Remarking

b-Interview

Collecting information tools

1. Scientific Resources and References: The researchers have reviewed many scientific resources and references in football refereeing field, sport psychology, scientific research, tests and measurements to support the steps of the current study with solemn and scientific things.
2. Previous researches and studies. The Researchers have reviewed many previous studies.
3. International network (Internet).
4. Tests and measurements.
5. Collecting data applications.
6. Statistic means.

Devices and supporting means

The devices and supporting means used by the researchers are:

1. Footbal Stadium.
2. Ten balls Nike type.
3. Ten Refereeing flags.
4. Ten cones.
5. Ten electronic watches Lord type.
6. Twent refereeing whistle FOX40 type.
7. One videos camera Sony type X40.
8. Portable computer (Acer).
9. Four cards, red, green, orange and yellow.
10. Interior hall.
11. Hand calculator Casio type.
12. Twent pencils.
13. Measurment tape.
14. Supporting team

Specialized mental exercises description

The researchers have applied the adopted specialized mental exercises for the Asian Federation and Arab federation on the experimental group's members.

The first exercise –Referee skills

This exercise aims to develop the speed, reaction and focusing to the Referee.

Table 1: Consistent of Control group members.

#	Variables	Measurement unit	Arithmetic mean	Standard deviation	Median	torsion	significance
1-	Chronological age (in years)	Year	27,300	1,160	27,000	0,342	consistent
2-	Refereeing age (in years)	Year	10,373	0,951	10,365	0,039-	consistent
3-	Focusing attention	Degree	5,338	0,488	5,250	0,588	consistent
4-	Kinetic-sensory perception regarding distance assessment	Cm	1,254	0,174	1,250	0,084	consistent
5-	Kinetic-sensory perception regarding age assessment	Second	7,379	0,493	7,000	0,535	consistent
6-	Mental imagery	degree	7,871	0,695	8,000	0,025	consistent

Table 2: Consistent of experimental group members.

#	Variables	Measurement unit	Arithmetic mean	Standard deviation	Median	torsion	significance
1-	Chronological age (in years)	Year	27,300	0,994	27,000	0,610	consistent
2-	Refereeing age (in years)	Year	10,473	0,960	10,865	0,383-	consistent
3-	Focusing attention	Degree	5,113	0,891	5,000	0,197-	consistent
4-	Kinetic-sensory perception regarding distance assessment	Cm	1,264	0,175	1,220	0,175	consistent
5-	Kinetic-sensory perception regarding age assessment	Second	7,580	0,531	7,400	2,000	consistent
6-	Mental imagery	degree	7,786	0,899	8,500	0,460	consistent

Table 3: Shows the equality between the papers sample's members.

Variables	Control group		Experimental group		Counted T	Significance level	Livin	Significance level
	Arithme tic mean	Standard deviation	Arithme tic mean	Standard deviation				
Chronological age (in years)	27,300	1,160	27,100	0,994	0,414	0,684	0,691	0,417
Refereeing age (in years)	10,373	0,951	10,473	0,960	0,234	0,818	0,001	0,981
Focusing attention	5,338	0,488	5,113	0,891	0,700	0,493	3,451	0,059
Kinetic-sensory perception regarding distance assessment	1,254	0,174	1,264	0,175	0,128	0,900	0,027	0,872
Kinetic-sensory perception regarding age assessment	7,379	0,493	7,580	0,531	0,877	0,392	0,485	0,495
Mental imagery	7,871	0,695	7,786	0,899	0,239	0,814	2,292	0,147

The number of participant is one referee plus 11 players.

Application

The players are trying to touch the referee, and the referee tries to identify the one who touched him and shows the free kick direction. If the same player touched the referee again, the referee will raise the yellow card and in the third touch will raise the red card. The players leave and return quickly.

The second exercise- Referee skills

This exercise aims to develop the speed, reaction and focusing to the Referee. The number of participant is one referee plus 14 players.

Application

The players touch or acting they are touching the opposing player, the referee will identify the player who touched the opposing player really. If this player touched the opposing player again, the referee will raise the yellow card, if the player repeated the touch the red card will be raised. The players leave and return quickly.

The third exercise-Referee skills

The goal of this exercise is to distinguish between the different positions inside the penalty area to increase focusing. The number of participants is 1 referee plus 4 attackers plus 5 defenders.

Application

The players touch or acting they are touching the opposing player, the referee will identify the player who touched the opposing player really. The referee will whistle and gives a penalty (defendants) or free kick (attackers). The players are moving without dispersion

The fourth exercise: Referee skills

The goal of this exercise is to distinguish between the different positions inside the penalty area to increase focusing. The number of participants is 1 referee plus 4 attackers plus 5 defenders.

Application

The players touch or acting they are touching the opposing player, the referee will identify the player who touched the opposing player really. The referee will whistle and gives a penalty against the defendant, or free kick against the attacker. The players are moving without dispersion.

The fifth exercise: Referee skills

The referee identifies the different positions inside the penalty area to increase focusing. The number of participants is 1 referee plus two groups of 4 attackers plus 5 defendants.

Application

The players touch or acting they are touching the opposing player, the referee will identify the player who touched the opposing player really. The referee will whistle and gives a penalty against the defendant, or free kick against the attacker. The players are moving without dispersion.

The sixth exercise-working team (Assistant)

The goal of this exercise, that the referee and his assistant will decide there is a committed foul or not by the defendant or the attacker inside or outside the penalty area. The participants are one attacker plus one defendant running toward the penalty area.

Application

The attacker and the defendant running toward the penalty area, and committing a foul. The referee assistant will decide the foul, penalty or he is acting.

The seventh exercise-Working team (Assistant)

The goal of this exercise, that the referee and his assistant will decide there is a committed foul or not by the defendant or the attacker inside the penalty area. The participants are two attacker plus three defendants running inside the penalty area.

Application

The 3 attacker plus 3 defendants running inside the penalty area, and committing a foul. The referee assistant will decide the foul, penalty or he is acting.

The eighth exercise- Working team (Assistant)

The goal of the referee and assistant referee 1 to increase the team work and avoid the contradiction of signals, they will decide the thrown-in direction and to increase focusing attention. The number of participants is one referee, referee assistant, 5 attackers and 5 defenders.

Application

The attackers and defendants in couples are running with the ball before the line of contact, one of them will kick the ball outside the field and the referee assistant will decide which direction the ball goes. The second couple kick the ball after the first couple. It is possible to let another player to go in for more difficulty.

The eighth exercise- Working team (Assistant)

The goal of this exercise is to decide whether the attacker is in offside or not, the referee assistant will decide there is a foul before the offside or not and the referee will decide the free kick foul committed by the attacker of the defender. The number of participants is one referee, referee assistant, 5 attackers and 5 defenders.

Application

The two attackers and 3 defenders will move slowly forward and backward.

The tenth exercise- Working team (Assistant)

The goal of this exercise, that the referee and assistant referee will monitor the correct positions in penalty. The number of participants is one referee, one assistant referee, two attackers and two defenders.

Application

Many mistakes could be happened during the penalty by the attackers or the defenders together, or even by the goal keeper.

4-11 The Eleventh exercise-working team (Assistant)

The goal of this exercise is to monitor the correct executions of penalties from the penalty sign. The number of participants is one referee, one referee assistant, two attackers and two defenders.

Application

Confronting many events during the penalties execution from the penalty sign.

The used tests determination

The intellectual tests were determined by the Title approval committee members:

a-Focusing attention test, it was designed by Dorothy Harris and translated to Arabic by Mohammed Hasan Alawi and Saad Jalal (1968,p 402).

b- Kinetic-sensory tests, that includes:

first: Test sense regarding time assessment (Khallel Ibrahim Al-Azawi. 2000, p17).

Second: Sense test regarding the distance assessment (Ibrahim Ahmed Salamah. 1999. P 164).

C-Intellectual Imagery test (Osamah Kamil Rateb. 2004, p74).

The exploratory experiment

The researchers made the exploratory experiment on referees' sample, which represent the original community. The test was made randomly (lottery), and it consisted of 5 referees. The tests were applied for two days. The first day was in Sunday 15-03-2020 for the intellectual abilities variables and the second day was in Monday 16-03-2020 for giving the mental exercises. The same tests were repeated on Tuesday 24-04-2020 and on Thursday 25-03-2020 for all tests with the aid of assistant of working team. The reason of exploratory experiment is to:

- a- Investigating whether the tests are proper to research sample and simplicity in application.
- b- Investigating whether the used devices and tools in research are valid or not.
- c- Confirming the working team performance and efficiency to make the tests and recording results.
- 4- Identifying the required time to execute the tests.

The steps of Field Research procedures

Pre-Test

The pre-tests for the research sample were made on Saturday 28-03-2020 for intellectual abilities tests on the two groups (control and experimental). These tests were underwent in Al-Kut Olympic Stadium.

The main experiment

The specialized mental exercises were given on Tuesday 31-03-2020 to the experimental group, while the control group was applying the curriculum terms that was prepared by the subsidiary referees committee in wasit province with the same days and times of the experimental group. The experimental group's work includes 24 training unit, three training units in a week for the days of Sunday, Tuesday and Thursday. The researchers have used the distribution method in learning process and teaching skills (specialized mental exercises), and the time of training was 20 minutes, the basic exercises period is 40 minutes for the one training unit which was 90 minutes. Two of the specialized mental exercises were given in each training unit in the first days, and three exercises were given in the last days. The period of giving these exercises was 8 weeks.

Post-Tests

After completing all the specialize mental exercise of the experimental group, the post-tests of the experimental and control group were made on Saturday in 23-05-2020 for the intellectual abilities. All these tests were mad in Al-Kut Olympic stadium. The researchers were concerned to prepare the same circumstances that all the post-testes were made.

Statistic tools

After receiving the pre-post-tests results, the statistical analyses were completed by using (SPSS ver.12) supplied with computer Pentium 4 type and Excel program.

Results Presentation, Discussion and Analysis

This chapter discusses the results presentation, discussion and analysis after collecting all the used data by the researchers and assembled in tables to extract the scientific evidences, and also it is an explanation proper tool for research and can achieve the researcher's hypothesis and goals in the light of field procedures that already done by the researcher.

Presenting the results' value in some intellectual abilities, analyzing and discussing them presenting the results' value of some intellectual abilities of the control group in pre-post-tests, analyzing and discussing them (Tables 4-6).

Presenting the results' value of some intellectual abilities of the control and experimental groups in pre-post-tests, analyzing and discussing them.

Discussing the study variables results in pre-post-tests of the experimental group. Throughout presenting the results in tables 4-6, the development

in post-tests of experimental group was appeared as a comparison to the pre-test due to the development of experimental group members of the focusing attention variable, as confirmed by the researchers. The prepared specialized mental exercises by the Asian Federation and applying them on the experimental group members (referees) gave to the research sample a new opportunity for control and domination in ideas, and that increase the focusing ability by isolating all the dispersion factors and concentrate on the refereeing performance, aspects, that have an important role in developing the focusing ability. The athletic who has a deep focusing is the one who can reconcile between his physical and mental positions (John Suer: 1993, p 30).

In most of the games, the referee has to be focusing attention for all the game parts even the precise things through receiving the main motives that contribute in game matters through hearing and sight sense, and that will form the kinetic mechanism by selecting the main motive to the playing status. Then, the formation or the selection of response will be made for one motive to make the correct decision (Zuheer Qasim Al-Khashab:1999, p 191). The focusing attention increases specially with the attackers when they want to use any chance to get rid of the defenders or create a good opportunity to his colleague, in addition to what extent this phenomenon can be used during shooting process from the steady state or when the attacker alone against the goal keeper (ibid). Regarding kinetic-sensory perception, most of researchers confirmed that the development of the experimental members sample came through applying the selected specialized mental exercises by the researchers, and aim to make referees recognize their movements inside the playing field regarding the playing cases that may occur during the game that include a continuous change.

The kinetic-sensory perception exercises that determined with distance, applied on the experimental group and were similar to the playing cases during competition have participated in improving the kinetic-sensory perception, and also helped the referees to achieve more recognition of movement inside the field. These exercise made the referees recognize their movements, increase focusing and accurate in making decisions, which led to recognize their movements inside this distance. As a result of that, we confirm that increasing exercises with quality will increase the skill and the experience in playing different cases (Shameoon, Ismael:2001, p66). Also, the specialized mental exercises have a great role in developing the kinetic-sensory perception, specially distance recognition for their great importance to the referee in football game in terms of movements regarding the ball directions in different areas based on the playing positions (Al-Jebouri:2011). The players existence in certain positions will require a kinetic performance that fit with the place that the player at, whereas he can deal with the tool or the ball for accurate determination of the required skill (ibid). Regarding the researchers' experiences (football referees), they confirmed the correct positioning in the field based on the playing situations and how to move forward and backward during kicking the ball for a high and long distance, it is one of the playing situations. The referee has to confront the ball and playing situation, which requires a good root recognition when he returns back facing the ball at the same time. This task was applied by the researchers through selecting the specialized mental exercises that aim to develop the distance perception. The repeated and continuous training with such type of intrusive variables throughout the sensory perception receivers that enable individual to feel his body positions during performance, the perception comes suddenly by experience and exercise which develop the sensory perception of the referee, and repetition may help him in distances evaluation. The kinetic-sensory perception development for the player includes his ability to determine his performance during the kinetic performance, and the ability to recognize the

Table 4: Shows the differences between the pre-post tests in some intellectual abilities value of the control group.

Variables	Measure unit	Control group		Experimental group		Differences in Arithmetic mean	Differences in Standard deviation	Counted T	Significance level
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation				
Focusing attention	Degree	5,338	0,488	9,563	0,911	4,225	1,107	12,071	0,000
Kinetic- sensory perception regarding distance assessment	cm	1,254	0,174	0,733	0,323	0,521	0,465	3,545	0,006
Kinetic- sensory perception regarding time assessment	second	7,379	0,493	6,972	0,296	0,407	0,536	2,403	0,040
intellectual imagery	degree	7,871	0,695	10,357	0,946	2,486	0,720	10,922	0,000

Morally in the confidence level of $\geq (0,05)$ freedom degree=9

Table 5: Shows the differences between the pre-post tests in some intellectual abilities value of the experimental group.

Variables	Measure unit	Control group		Experimental group		Difference s in Arithmetic mean	Differences in Standard deviation	Counted T	Significance level
		Arithme tic mean	Standard deviation	Arithme tic mean	Standard deviation				
Focusing attention	Degree	5,113	0,891	12,038	0,677	6,925	0,972	22,525	0,000
Kinetic- sensory perception regarding distance assessment	cm	1,264	0,175	0,476	0,184	0,788	0,333	7,477	0,000
Kinetic- sensory perception regarding time assessment	second	7,580	0,531	6,230	0,313	1,350	0,532	8,028	0,000
intellectual imagery	degree	7,786	0,899	15,000	0,816	7,129	0,963	29,799	0,000

Morally in the confidence level of $\geq (0,05)$ freedom degree=9

Table 6: Shows the differences between the pre-post tests in some intellectual abilities value of the control and experimental groups.

Variables	Measure unit	Control group		Experimental group		Counted T	Significance level
		Arithmetic mean	Standard deviation	Arithme tic mean	Standard deviation		
Focusing attention	Degree	9,563	0,911	12,038	0,677	6,893	0,000
Kinetic-sensory perception regarding distance assessment	Cm	0,733	0,323	0,476	0,184	2,190	0,042
Kinetic-sensory perception regarding time assessment	Second	6,972	0,296	6,230	0,313	5,451	0,040
intellectual imagery	Degree	10,357	0,964	15,000	0,816	11,751	0,000

Morally in the confidence level of $\geq (0,05)$ freedom degree=18

relationship between his position and the ball (Al-Dhumad: 2000, p 111). The mental imagery variable development came from the perfect presentation and explanation for all the refereeing situations for more than one time by the researcher, and that what confirmed by the researchers. After the mentioned above, the required decision will be issued (Al-Khooli, et al. 1998). When the imagination used to develop the skills rapidly and increasing kinetic learning, it will be more effective during training than the kinetic or sensory perception that accompanied movements (ibid). Hence, receiving an accurate information for many times for the skill that contributed in primarily formation of the skill, then with repetitions and tries during the application process it will reach to an advanced stages of development and perfection. The exercises variation, skills type and time have the great influence on developing the intellectual abilities. The mental imagery has given to the experimental group's members a chance for learning through many different responses, and resulted many images kept in mind to avoid mistakes, and the mental imagery will help to identify mistakes. Repeating the movement many times by the referee will contribute in identifying mistakes and making the proper procedures to correct them. Repeating the movement mentally by the referee will develop the group's members ability in mental imagery using measure the same as the control group. Many researchers confirmed that the mental exercises have worked on forming new experiences to the referees in the light of mental imagery variable, because it is a mental mean that many new images can be formed, that never happened before to prepare the mental performance. Gross confirmed in movements influence and acquisition by controlling the imagery ability (1986, p.467).

Recommendation

The specialized mental exercises were contributed to develop the mental abilities (Focusing attention, sensory-kinetic perception and mental imagery) to improve their levels.

The supremacy of the experimental group on the control group in all under-study tests (pre-post tests) that referee to the mental exercises effectiveness.

Conclusions

- The necessity to concern the intellectual abilities for the referees in developing training courses that may hold by the Football central Union/ Referees Union.

- The necessity of inserting the special tests of mental abilities with physical and recognition tests for referees.

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