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## *Building and codifying the scale of the art of managing matches for first-division football referees in Iraq*

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### **ABSTRACT**

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#### **Keywords:**

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The importance of the research lies in building and codifying a scientific scale for the art of managing matches for football referees in Iraq, as an objective tool that contributes to diagnosing the levels of referees, and identifying the strengths and shortcomings of their administrative performance on the field, and the purpose of the research is to build and codify a scale to measure the art of managing matches for first-class referees and to find standard grades and levels for the scale of the art of managing matches for football referees. As for the research fields, the human field included the referees of the first division of the Iraqi Football League for the season (2023-2024) in the central and southern regions, and the temporal domain was determined for the period from (2/2/2024) to (22/6/2024), while the spatial field included the referees' training fields in the central and southern regions. The researchers used the descriptive method in the survey method, and the research population consisted of (191) referees, where the research sample was selected by the deliberate method, which is (160) referees, with a percentage of (83.76) % of the research community, and the appropriate devices and tools were used as well as scientific procedures to build the scale of the art of game management, and the researchers used the appropriate statistical means through the statistical package (SPSS) to obtain the results of the research, and the results were analyzed and discussed according to modern scientific sources, and the researchers will produce the following conclusions, including the construction and legalization of a tool to measure the art of match management. For first-division referees in football in Iraq, most of the referees were positioned at the high level in the scale of the art of match management and its four dimensions, and the researchers recommended several recommendations, including the adoption of the game management art scale for first-division referees in football.

## **1- Introducing the research**

### **1-1 Introduction and Importance of the Research:**

Refereeing in football is one of the main pillars for the success of sports competitions, as the referee plays a pivotal role in enforcing the laws of the game and achieving justice between the competing teams, as well as maintaining the flow of performance and the spirit of competition. With the continuous development of the modern game of football, and the accompanying increase in the pace of play and the increase in psychological, media and fan pressures, the referee is no longer required to have the correctness of the refereeing decision, but also to possess a high level of competence in the art of managing the match, including the ability to control the tempo of play, control emotions, communicate well with players and technical staff, and deal flexibly with changing situations on the field.

The art of match management is increasingly important for first-tier referees due to the nature of the matches they manage, which are characterized by sensitivity and intense competition, and the multiplicity of controversial situations that require decisive and quick decisions coupled with wisdom and field experience. Despite the efforts made to develop the physical and technical aspects of referees in Iraq, the process of evaluating the level of the art of match management is still often based on personal observation and self-esteem, in the absence of codified scientific measurement tools that reflect this variable objectively and accurately.

The importance of the research lies in building and codifying a scientific scale for the art of managing matches for football referees in Iraq, as an objective tool that contributes to diagnosing the levels of referees, and identifying the strengths and shortcomings of their administrative performance on the field, in a way that helps the competent authorities to direct the preparation, development and refereeing programs according to accurate scientific foundations, as well as its contribution to improving the level of managing football matches and enhancing refereeing justice, which is reflected positively on the level of football competitions and the confidence of the sports community in national refereeing.

### **1-2 Research Problem:**

Although the art of match management is of great importance to the success and performance of the referee on the field, this aspect is often evaluated in subjective or impressionistic methods that lack accuracy and objectivity, and rely on the opinions of the evaluators or the general feedback after the matches. It is also noted that the Arab Sports Library lacks codified and approved standards that measure the art of managing matches in a comprehensive manner that takes into account its various dimensions. Hence, the problem of the research is determined in the following question:

Is it possible to build and codify an objective scientific scale to measure the art of managing matches among referees, which is honest and consistent, and contributes to the evaluation and development of their performance?

### **1-3 Research Objectives:**

1. Building and codifying a scale to measure the art of managing matches for first-tier referees.
2. Finding standard scores and levels for the Match Management Art Scale for Football Referees.

### **1.4 Research Areas**

**1.4.1 Human Field:** First Class Football Referees in the Central and Southern Regions of Iraq.

**1.4.2 Spatial Domain:** Training Grounds for the Governors of the Governorates of Iraq.

**1-4-3 Temporal Range:** 15/9/2024 to 15/10/2024.

## 2- Research methodology and field procedures:

### 2-1 Research Methodology:

The researchers used the descriptive method with the survey method to fit the research problem.

### 2-2 Research Population and Sample:

The research community included the referees of the first division of the Iraqi Football League for the season (2023-2024) in the central and southern regions. The research community can be defined as "all individuals, objects, or persons that constitute the subject of the research problem, which is all elements related to the study problem to which the researchers seek to generalize the results of the study", while the research sample amounted to (160) judgments and (31) judgments were excluded for various reasons, including injury, non-existence, and non-response to the questionnaire, and the sample was distributed according to Table (1). (عباس و اخرون 2011، 217)

Table (1)

Shows the distribution of the research sample

Percentage	Issue	Sample	t
5.23%	10	Exploratory Experiment	1
47.12%	90	Sample Construction	2
31.41%	60	Sample Rationing	3
16.23%	31	Excluded	4
100%	191	Total	

### 2.3 Devices and Instruments Used:

- Arab and foreign references and sources.
- Opinions of experts and specialists on the validity of the dimensions and paragraphs of the Match Management Art Scale.
- Observation and experimentation.
- Tests and measurement.
- International Information Network (Internet).
- Personal computer (HP)
- Electronic Manual Calculator (1).
- iPhone 15 PRO MAX Camera.
- Ballpoint pens.
- Papers.

### 2.4 Field Research Procedures:

#### 2.4.1 Procedures for Building the Art of Match Management Scale:

The procedures that can be followed when building a test or questionnaire are subject to many scientific conditions, the most important of which are:

##### 2.4.1.1 Determining the purpose of the scale:

One of the essential steps to building a scale is to clearly define the purpose of the scale, and the purpose of building a scale (the art of game management) is to know the levels of referees in how matches are managed. (ياسين 2015، 157)

##### 2.4.1.2 Identify the areas or dimensions of the Match Management Art Scale.

The researchers began by analyzing the phenomenon to be measured to determine the basic components, factors, dimensions or areas that it includes, and its conditions are that it should be simple and form the phenomenon to be measured in total, as the researchers resorted to presenting the proposed dimensions of the (Consensual Behavior) scale in a questionnaire form to the experts and specialists in the field of sports psychology, testing and measurement, the number of (18) experts to indicate its validity and the independence

of each trait from other traits, and to analyze the opinions of experts statistically, the researchers used the (K2) test to show the agreement Opinions of experts and specialists on the areas of the scale as shown in Table (2):

Table (2)

Shows the values of (K2) calculated for the agreement of the experts on the dimensions of the Match Management Art Scale

Nomination		Significance Level	K2 value Calculate d	Disagree	Agreed	Dimensions	t
Nop e.	yes						
	√	0.00	10.88	2	16	Arbitral Decision Making	1
	√	0.00	5.56	4	14	Control of the Match	2
	√	0.00	14.22	1	17	Conduct and Discipline Management	3
	√	0.00	8.00	3	15	Psychological balance and emotional control	4

**\* Significant at the significance level of  $\leq 0.05$**

Thus, the dimensions that received the approval of the experts and specialists for their validity in measuring the research variable (the art of game management), which are the dimensions in which the calculated values of (K2) were greater than their tabular value of (3.84) with a degree of freedom (1) and a significance level of (0.05) and in favor of the answer (fixed), as the two researchers approved the approval of (14) experts or more for the validity of the field, out of the total number of (18) experts, and thus the research obtained the validity of the hypothetical formation, and thus all the selected dimensions were adopted.

#### **2.4.1.3 Preparation of the paragraphs of the scale:**

The researchers used several methods to count the items of the scale, which are:

**First: Reviewing the relevant sources:** By reviewing a wide range of sources in the field of general and mathematical psychology, testing and measurement, and studying the literature of these sources, the researchers have formulated a good number of paragraphs of his scale.

**Second: Reviewing multiple studies:** A group of studies that investigate the field of management and its arts, football refereeing, and the personal traits of referees, and other psychological studies that research in other fields in order to benefit from the meanings of phrases, some of their ideas and words, were reviewed, and through this, the two researchers were able to prepare (40) paragraphs with (10) paragraphs for each field.

#### **2.4.1.4 Determining the method and basis for drafting the paragraphs of the scale:**

The method (Likert) was relied on in the formulation of the paragraphs, which is similar to multiple choice, which is one of the common methods in measurement and educational and psychological research, as it presents the respondent with a position and asks him to determine his answer by choosing an alternative from among several alternatives that have different weights, and it is worth mentioning that some of the paragraphs were worded positively and the other part was negative to reduce stereotype in the answer and urge the examinee to focus on the content of the paragraph before answering it, and this method helps in Reducing boredom and monotony, and that the words chosen according to this method have a (five) gradient consisting of (always, often, sometimes, rarely, and never), as these words fit the content of the phrases that were formulated and the method of measuring the search variable.

#### **2.4.1.5 Method of Correction and Calculation of Scale Scores:**

The step of calculating the score obtained by the laboratory on the scale is one of the important steps, and the degrees of correction of the statements vary from one scale to another, and this depends on the method of formulating the statements, the number of alternatives to the answer, and whether the statement is positive or negative, and since the researchers adopted the (Likert) method with a (five) gradient (always applicable, often applicable, sometimes applicable, rarely applicable, never applicable), so the correction method is done according to what is shown in Table (3):

Table (3)  
Shows how to correct the metric statements

Never apply	Rarely applicable	Sometimes applicable	Often applicable	Always applicable	Ferry Type
1	2	3	4	5	Positive
5	4	3	2	1	Negative

The total score of the scale is calculated by adding up the scores of the alternatives indicated by the examinee in all paragraphs of the scale.

#### 2.4.1.6 Calculation of the content truthfulness of the metric statements:

Content Validity is "measuring the extent to which the test represents the aspects of the measured aspect of its research, and analyzing the test resources and its elements logically to identify the functions and aspects represented in it and the ratio of each of them to the entire test", after the (40) statements of the scale were prepared distributed over the four dimensions of the scale with (10) paragraphs for each field that were presented in a questionnaire form to a group of experts and specialists in the field of sports psychology, testing and measurement, a total number of (19) experts to indicate their agreement or disagreement The two researchers used the (K2) test to analyze the opinions of the experts statistically, as each statement was considered valid when the calculated value of (K2) is greater than its tabular value of (3.84) at the level of significance (0.05) and the degree of freedom (1), which is equivalent to the approval of (14) experts, as shown in Table (4). (باهي 1999، 28)

Table (4)

It shows the number of paragraphs of the scale in its initial form before and after it is presented to experts and specialists distributed over the dimensions

NUMBER OF PARAGRAPHS OF THE SCALE AFTER DELETION	NUMBER OF DELETED PARAGRAPHS	NUMBER OF PARAGRAPHS OF THE SCALE IN ITS INITIAL FORM	DIMENSION	T
10	0	10	Arbitral Decision Making	1
10	0	10	Control of the Match	2
10	0	10	Conduct and Discipline Management	3
10	0	10	Psychological balance and emotional control	4
40	0	40	Total	

#### 2.4.1.7 Preparation of Scale Instructions:

The two researchers have prepared the instructions of the Match Management Art Scale and will be presented to the referees, as they were simple and clear, and the answers will

be confidential that no one can see except the two researchers for the purpose of increasing the referee's reassurance, while emphasizing that no paragraph is left unanswered.

#### **2.4.1.8 Exploratory Experiment:**

On (1/3/2024), the researchers started conducting the exploratory experiment on a sample of first-class football referees in Maysan Governorate, where there are (10) referees, and the purpose of the exploratory experiment is to identify the extent of the sample's understanding and comprehension of the scale's instructions, as well as to identify the clarity of the scale's paragraphs, as well as to know the time taken to answer, as the researchers reached the following results:

- 1- The instructions and paragraphs are clear.
- 2- The average answer to the (The Art of Match Management) scale is (15) minutes.
- 3- Also, the assistant team gets to know the tasks of a coin, and through that, the scale is ready for application.

#### **2.4.1.9 Application of the Scale to the Construction Sample:**

The scale (The Art of Match Management) was applied during the period from (15/3/2024 to 20/4/2024), where the number of paragraphs exceeded (40) paragraphs on the construction sample, which is a total number of (90) referees, and the assistant work team began the task assigned to me, and after completing the answer, the team collected the forms, and then the statistical operations were conducted to find the discriminating ability of each paragraph, exclude the non-discriminatory paragraphs, and find the correlation coefficient for the paragraphs.

#### **2.4.1.10 Statistical analysis of the paragraphs:**

"Statistical analysis of paragraphs through the responses of a sample of individuals in order to reveal the standard (psychometric) characteristics of paragraphs is one of the basic requirements for building psychological scales, because logical analysis of paragraphs may sometimes not reveal their validity or truthfulness accurately, while statistical analysis of scores reveals the accuracy of paragraphs in measuring what they were designed to measure." (Holden 1985, 386)

First: Indicators of Discrimination.

Second: Scientific indicators of the scale.

#### **First: Indicators of Discrimination:**

For the purpose of calculating the parameters of the paragraphs, the researchers used two methods:

##### **1- Terminal Groups**

##### **2- Internal consistency method**

##### **1- Peripheral Groups (Discriminating Power):**

It means the ability of the test to distinguish between individuals with a high degree of characteristic or trait, and individuals with a low degree of the same trait or trait. (كاظم 2015, 123)

Discriminating ability refers to the extent to which paragraphs are able to distinguish between individuals with higher and lower levels of rulers in relation to the area measured by the paragraphs. The purpose of analyzing the paragraphs of the scale is to improve the quality of the test by discovering the weaknesses of the paragraphs and then working to reformulate them again and exclude them if they are not valid, as (27%) of the research sample forms were taken, and those who obtained the highest scores, as they were called the highest group, and the number of forms was (24), as well as (27%) of the sample forms were taken, and those who obtained the lowest scores, where they were called the lowest group, and the number of forms was (24), where the total number of forms for the two

groups reached Upper and Lower (48) Forms ( Show 1961 ، 50) (Scanall.t 1975، 219)

In this way, "this method gives us a better appreciation of discriminating power." For the purpose of calculating the coefficient of differentiation of each of the (40) items of the scale, where the value of ( Menerrns 1984، 310)T)(Calculated and Value)sig) as an indication of the validity of the paragraph where it was (75 ،2015 ابرون و الاسري)The number of forms obtained with higher grades is (24) as well as the minimum forms, so that the number of approved forms becomes (48) forms The results of the analysis showed that all the items of the scale were distinguished using Statistical Package for Social Sciences (spss), and Table (5) shows this:

**Table (5)**

**Shows the arithmetic medians, standard deviations, calculated t(t) value and significance level**

SIG	T	LOWER GROUP		TOP GROUP		T
		on	Going to	on	Going to	
First Domain: Arbitral Decision Making						
0.000	26.233	0.320	1.112	0.476	4.388	1
0.004	23.933	0.343	1.133	0.588	4.3221	2
0.000	28.411	0.340	1.122	0.501	4.876	3
0.006	20.432	0.511	1.301	0.798	4.323	4
0.005	30.432	0.232	1.423	0.457	4.488	5
0.000	22.454	0.143	1.011	0.344	5.000	6
0.000	38.787	0.243	1.022	0.876	3.922	7
0.003	29.321	0.511	1.499	0.238	5.000	8
0.006	23.987	0.512	1.599	0.476	4.976	9
0.003	19.987	0.432	1.690	0.421	4.476	10
Second Domain: Control of the Match						
0.001	17.488	0.466	1.833	0.932	4.343	11
0.005	16.601	0.476	1.800	0.711	4.543	12
0.000	24.280	0.321	1.165	0.499	4.543	13
0.000	23.965	0.411	1.432	0.588	4.321	14
0.007	33.878	0.432	1.345	0.500	4.564	15
0.000	17.543	0.213	1.300	0.732	4.212	16
0.003	22.765	0.231	1.213	0.477	4.532	17
0.000	16.265	0.265	1.124	0.654	4.231	18
0.003	32.876	0.399	1.111	0.833	3.888	19
0.000	24.231	0.512	1.675	0.976	4.987	20

Third Domain: Behavior Management and Discipline						
0.001	34.432	0.030	1.011	0.511	4.511	21
0.000	28.432	0.476	1.322	0.488	4.389	22
0.000	23.032	0.487	1.488	0.655	3.898	23
0.002	29.385	0.500	1.388	0.498	4.798	24
0.003	21.231	0.021	1.005	0.800	4.212	25
0.000	19.311	0.010	1.031	0.699	3.733	26
0.004	28.200	0.390	2.310	0.355	4.790	27
0.007	31.598	0.376	1.790	0.477	4.580	28
0.000	27.454	0.436	1.630	0.498	4.511	29
0.006	23.876	0.456	1.699	0.599	4.564	30
Fourth Domain: Psychological Balance and Emotional Control						
0.000	27.421	0.432	1.764	0.456	4.865	31
0.002	29.876	0.400	1.211	0.532	4.543	32
0.002	28.987	0.432	1.300	0.388	4.976	33
0.006	29.119	0.311	1.070	0.512	4.490	34
0.000	35.900	0.001	1.000	0.498	4.321	35
0.000	18.878	0.043	1.032	0.690	3.787	36
0.000	20.865	0.013	1.124	0.880	3.877	37
0.003	24.689	0.021	1.022	0.790	4.800	38
0.000	33.343	0.378	1.687	0.011	4.999	39
0.004	31.213	0.483	1.690	0.503	4.611	40

Significant at the significance level of  $\leq 0.05$

It was shown from the above table that all the paragraphs of the scale were distinctive, as the level of statistical significance was less than (0.05), and this indicates that there are significant differences between the upper and lower groups, as all these paragraphs were adopted. Thus, the number of paragraphs of the scale became (40) items

## 2- Internal consistency of the paragraphs:

The importance of this method lies mainly in "knowing whether each of the paragraphs of the scale is crossing the same path as the scale as a whole." (51) (العيسوي 1985). The Art of Managing the Match Consists of Four areas To measure the phenomenon, as the sum of the scores of these dimensions is the total score of the test, while the internal consistency of this test was used for this purpose, the Pearson correlation coefficient was used, by finding the correlation relationship between the scores of each item and the total score of the scale, and in this regard, it relied on the responses of the research sample amounting to (90) judgments. So The researchers used the correlation coefficient (Pearson) through the statistical package (spss) between the paragraphs of the scale and the total score of the scale, and Table (6) shows this.

Table (6)

Shows the degree to which the paragraph is related to the overall score of the scale and the level of significance

LEVEL SIGNIFICANCE	CORRELATION COEFFICIENT	T	SIGNIFICANCE LEVEL	CORRELATION COEFFICIENT	T	SIGNIFICANCE LEVEL	CORRELATION COEFFICIENT	T
0.005	0.311	29	0.000	0.466	15	0.000	0.345	1
0.000	0.670	30	0.001	0.440	16	0.000	0.473	2
0.000	0.653	31	0.000	0.411	17	0.000	0.690	3
0.001	0.611	32	0.000	0.433	18	0.000	0.744	4
0.000	0.787	33	0.000	0.590	19	0.000	0.689	5
0.000	0.765	34	0.001	0.764	20	0.001	0.768	6
0.000	0.744	35	0.000	0.653	21	0.000	0.690	7
0.000	0.675	36	0.000	0.732	22	0.000	0.687	8
0.000	0.777	37	0.000	0.755	23	0.002	0.788	9
0.001	0.668	38	0.000	0.783	24	0.000	0.743	10
0.000	0.733	39	0.001	0.720	25	0.000	0.763	11
0.000	0.701	40	0.000	0.698	26	0.001	0.775	12
			0.001	0.420	27	0.000	0.688	13
			0.000	0.501	28	0.001	0.401	14

From Table (6), we find that all the paragraphs are related to the total score of the scale.

#### 2.4.1.11 Stability

Consistency means "the degree with which the test measures the phenomenon of the object of measurement". (فرحات 2001، 144) Consistency is one of the main pillars in the application of tests and the approval of their results. There are several ways in which we can extract the stability coefficient, among which the researchers have chosen:

##### First: Cronbach's Alpha Method

To extract the stability in this way, the (Cronbach's alpha) equation was applied to the scores obtained by the sample members who were (90) judges, so the value of the stability coefficient of the scale was (0.980), which is an indication that the stability coefficient of the test is very high, and the closer the test stability coefficient is to the correct one, this indicates the strength of the test's stability. (حسن 2006، 11)

##### Second: The Half-Segmentation Method

It is the most stable and used method in paper and pen tests, through which an individual can obtain two scores, where the test is divided into two parts, where the first part included individual scores, while the second part included even scores, through which each individual obtained two scores and the correlation between the two scores (scores of the two parts of the test), which is considered the internal consistency of the two parts of the test only and not for the test as a whole. Since the Pearson correlation coefficient (0.835) and in order to obtain the score of the stability coefficient of the scale as a whole, the researcher used (ياسين 2015، 94) that Spearman–Brown equation using the statistical package (spss), and the value of the stability coefficient reached (0.904), which is a high indicator of the stability of the scale..

#### 2.4.1.11 Objectivity:

Objectivity means freedom from bias or intolerance and not to include personal factors in the judgments issued by the two researchers. Objectivity is related to the correction method more than to the test itself, and each test is accompanied by a correction method that includes the correct and incorrect answers and is called the error correction guide (الإمام و اخرون بلا تاريخ، 148) **The researchers believe that** All of this makes the answers to the paragraphs of the scale objective, as questionnaires in which the answer to the same paragraph is repeated and in which the answer is not completed are excluded.

#### 2.4.1.12 Standardization of the Scale:

It is the final stage of the test building or the scale In order to be ready for use, and here the importance of the process of legalizing the scale is highlighted by extracting the grades and standard levels from the raw grades that we obtained from the application of the scale to the rationing sample consisting of (60) rulings during the period from (1/5/2024 to 2/6/2024), and the standardized test is. A test that has specific and clear instructions to be applied and recorded, and it has already been applied to a representative sample of the original community for which the test was intended to be for the purpose of determining clear criteria for it in general, as the legalization requires that the test instructions be clear and the method of correcting it is uniform in all situations, and in a way that allows obtaining almost the same results in the event of retaking the test. (خاطر و البيك 1996، الخيكاني 2002، 17)(37)

##### 2.4.1.12.1 Derivation of standard scores:

The statistical indicators of the rationing sample through the statistical program (SPSS), where the torsion coefficient indicates that the test scores are close to zero, and this indicates that the distribution of the scores is moderate due to their small value.

**Table (7)**

**Shows the statistical coefficients of the rationing sample for the scale (The Art of Match Management)**

Torsion coefficient	Broker	Standard deviation	Arithmetic mean	Sample size
0.727	127.5	14.446	127.25	60

The G-grade criteria and the revised T criteria, corresponding to the raw grades, have been calculated;

**Table (8)**

**Shows the raw grades, the modified grades of Z and T corresponding to the rationing sample.**

Modified Grade T	Grade G	Raw Grade	Modified Grade T	Grade G	Raw Grade	Modified Grade T	Grade G	Raw Grade
53.26	0.32	132	46.39	-0.36	122	29.92	-2.00	98
53.26	0.32	132	46.39	-0.36	122	31.98	-1.80	101
53.26	0.32	132	47.08	-0.29	123	34.04	-1.59	104
53.26	0.32	132	48.45	-0.15	125	34.04	-1.59	104
53.94	0.39	133	49.14	-0.08	126	36.78	-1.32	108
53.94	0.39	133	49.82	-0.017	127	36.78	-1.32	108
56.00	0.60	136	49.82	-0.017	127	37.47	-1.25	109
56.00	0.60	136	49.82	-0.017	127	38.15	-1.18	110
57.37	0.73	138	49.82	-0.01	127	38.15	-1.18	110
58.06	0.80	139	49.82	-0.01	127	40.21	-0.97	113

58.06	0.80	139	50.51	0.05	128	41.59	-0.84	115
58.75	0.87	140	50.51	0.05	128	42.27	-0.77	116
59.43	0.94	141	50.51	0.05	128	42.27	-0.77	116
60.811	1.08	143	51.20	0.12	129	42.27	-0.77	116
63.55	1.35	147	51.20	0.12	129	43.65	-0.63	118
64.24	1.42	148	51.88	0.18	130	43.65	-0.63	118
64.24	1.42	148	51.88	0.18	130	45.02	-0.49	120
68.36	1.83	154	51.88	0.18	130	45.02	-0.49	120
69.73	1.97	156	53.26	0.32	132	45.70	-0.42	121
86.89	3.68	181	53.26	0.32	132	45.70	-0.42	121

#### 2.4.1.12.2 Standard levels:

The purpose is to obtain a codified tool through which the standard scores and levels have been extracted, through which we can rely on them to measure the phenomenon to be measured, the Z and the T have been extracted, through which the standard levels have been extracted, through which we can judge the results of the scale. Table (9) shows this:

**Table (9)**

**Shows the standard levels, categories and repetitions of the scale (the art of match management) of the rationing sample for the dimensions of the scale**

Percentage	Duplicates	Categories	Levels	Dimension	t
16%	10	Less than 32.220	Low	Arbitral Decision Making	1
34%	20	32.22-35.56	Medium		
34%	20	35.56-38.912	High		
16%	10	High 38.912	Very high		
16%	10	Under 33.03	Low	Control of the Match	2
34%	20	33.03-37.18	Medium		
34%	20	37.18-41.33	High		
16%	10	Above 41.33	Very high		
16%	10	Less than 32.23	Low	Conduct and Discipline Management	3
34%	20	32.23-36.54	Medium		
34%	20	36.55-40.86	High		
16%	10	Above 40.86	Very high		
16%	10	Less than 31.51	Low	Psychological balance and emotional control	4
34%	20	31.51-35.29	Medium		
34%	20	35.30-39.08	High		
16%	10	Above 39.08	Very high		
16%	10	Below 138.20	Low	Scale as a whole	5
34%	20	138.20-145.35	Medium		
34%	20	145.35-152.99	High		
16%	10	Up from 152.99	Very high		

#### 2.5 Statistical Methods Used:

- Statistical Package (SPSS 26):
- Microsoft Excel system for downloading and separating data and calculating standard scores in a sequential manner.

### 3. Presentation, analysis and discussion of the results:

#### 3-1 Presentation, analysis and discussion of the results of the Match Management Art Scale:

##### 3.1.1 Presentation of the results of the (Art of Match Management) scale for the dimension (refereeing decision-making)

##### Analysis and Discussion:

Table (10)

Shows the hypothetical mean, arithmetic mean, standard deviation, calculated t-value, and sig value of the dimension (arbitral decision-making).

Level	sig	(t)	on	Going to	The hypothetical medium	Dimension paragraphs
High	0.000	84.640	3.346	36.566	30	10

Through Table (10), the number of paragraphs after **(Arbitral Decision Making)** (10) Paragraph and hypothetical mean (30), and the arithmetic mean of the research sample was (36.566) and standard deviation (3.34), and reached (t. Al-Muhtasibah) (84.64) and the level of significance was (0.000) and at a significance level of (0.05), Through the results of the statistical analysis, there are significant differences between the arithmetic and hypothetical averages and in favor of the arithmetic mean of the research sample. The research sample has a high level of arbitrary decision-making.. The researchers attribute the reason for this to the fact that the high level of decision-making dimension of the sample referees reflects their efficiency and ability to manage matches effectively, and the importance of investing in cognitive training and intensive analysis of refereeing cases as part of future refereeing development programs, and that the research sample is highly skilled in making decisions during matches, which can be explained by its association with multiple factors including attention skills, rapid analysis of situations, self-confidence, in addition to continuous training and field refereeing. These results also emphasize the importance of consideration in referees preparation programs to enhance these skills through realistic training applications, and the analysis of difficult arbitration cases to improve the quality of decisions and reduce refereeing errors. This result is consistent with many studies that confirm that the decision making of referees is affected by a number of psychological and cognitive factors that contribute to improving the quality of decisions during the match, as (Sherif Masoud and Zawi Abdel Salam, 2014) emphasized that "the ability of the referee to focus attention related to refereeing situations directly affects the quality of the decision taken, as the referee needs to analyze a large number of information in a short time to make the right decision at the right moment, and this requires skills Advanced knowledge, including attention and quick analysis of situations", as well as several studies have emphasized the importance of decision-making for referees and its impact on refereeing performance and successful match management: "Accuracy in decision-making is one of the main features that distinguish high-performance referees, and that the referee who has the ability to quickly perceive situations and make sound decisions represents a great value in managing matches and reducing refereeing errors. (44، 2021، وأخرون، الحوفي،)" (282-269، 2014، عبد السلام، مسعود).

##### 3.1.2 Presentation of the results of the "Art of Match Management" scale for the dimension (control of the course of the match)

##### Analysis and Discussion:

Table (11)

**Shows the hypothetical mean, arithmetic mean, standard deviation, calculated t-value, and sig value of the dimension (control of the course of the match)**

Level	sig	(t)	on	Going to	The hypothetical medium	Dimension paragraphs
High	0.000	69.442	4.147	37.183	30	10

Through Table (11), the number of paragraphs after **(Control of the Game)** (10) paragraphs, and a hypothetical average of (30), and the arithmetic mean of the research sample was (37.183) and the standard deviation was (4.147), and it was (t. The Calculator) (69.442) and the significance level was (0.000) and at the significance level (0.05). Through the results of the statistical analysis, there are significant differences between the arithmetic and hypothetical averages and in favor of the arithmetic mean of the research sample. The research sample has a high level of control over the course of the match. The researchers attribute this high level to the fact that controlling the course of the match is a central aspect of the referee's performance, as it requires not only a good understanding of the rules, but also organizational and analytical skills that enable the referee to keep pace with the developments of the game, manage critical times, and reduce tensions between players. where The high level to Controlling the course of the match among the sample referees indicates advanced cognitive and analytical competencies, and emphasizes the importance of field training, and dealing with realistic refereeing cases to improve the ability to control the rhythm of play and provide a consistent and fair performance. and control "The referee's ability to manage the course of play is improved by increasing the training experience and addressing various refereeing cases within the refereeing and development programs, leading to more accurate and organized decisions within the match" (49، وآخرون 2021، الحوفي) Research also links field experience and the psychological state of referees to the quality of refereeing performance. (Ahmed Abdo Hassan 2024) refers to "Psychological differences between the levels of referees affect their ability to make decisions and control the situations of the game, which can be explained by the fact that the referee with a high psychological ability is more able to control and manage the course of the match" (55، حسن 2024، ا).

### **3.1.3 Presentation of the results of the "Art of Match Management" scale for the dimension (Conduct Management and Discipline)**

#### **Analysis and Discussion:**

**Table (12)**

**Shows the hypothetical mean, arithmetic mean, standard deviation, calculated t-value, and sig value for the dimension (behavior management and discipline)**

Level	sig	(t)	on	Going to	The hypothetical medium	Dimension paragraphs
High	0.000	65.602	4.315	36.550	30	10

Through Table (12), the number of paragraphs after **(Conduct and Discipline Department)** (10) Paragraph and hypothetical mean (30), and the arithmetic mean of the research sample was (36.550) and the standard deviation was (4.315), and it was (t. Calculated) (65.602) and the significance level was (0.000) and at a significance level of (0.05), Through the results of the statistical analysis, there are significant differences between the arithmetic and hypothetical averages and in favor of the arithmetic mean of the research sample. The research sample has a high level of behavior and discipline dimension The researchers attribute that the high level of behavior management and

discipline variable among the sample referees reflects their ability to maintain order and discipline within the match, and emphasizes the importance of specialized training programs that enhance the skills of dealing with different behaviors and improve the quality of refereeing performance in general. And that this High Level In the dimension Conduct and Discipline Management It represents one of the main pillars of the referee's performance, as it requires him to be highly capable of dealing with conflicts, tensions between players, and protests that may arise during the course of the game, that good referee is not only limited to the application of the law, but also includes regulating behavior on the field, self-control among players, and reducing aggressive behavior through his firm and appropriate communication with the participating teams. The level of behavior management and discipline of the sample referees reflects their advanced cognitive and behavioral skills, including the ability to deal with player protests, self-control, and ensuring adherence to the rules on the field. These results also reflect the importance of continuous training for referees in confronting aggressive behavior and controlling conflicts, as effective refereeing requires training on analyzing in-match behaviors and how to deal with them in appropriate legal and psychological ways "Good refereeing contributes to reducing aggressive behavior among players and fans and enhances discipline within the match, which shows the impact of refereeing in managing tense behavioral situations within the competition as well as "that (حمزة 2022، 287) Understanding and applying the legal rules effectively helps to reduce disputes and unsportsmanlike behavior on the field, and increases players' respect for decisions and refereeing in general." (ياسين و عبدالحكيم 2024)

### 3.1.4 Presentation of the results of the (Art of Match Management) scale for the dimension (psychological balance and emotional control)

#### Analysis and Discussion:

Table (13)

Shows the hypothetical mean, arithmetic mean, standard deviation, calculated t-value, and sig value for the dimension (psychological balance and emotional control)

Level	sig	(t)	on	Going to	The hypothetical medium	Number of paragraphs
High	0.000	72.269	3.783	35.300	30	10

Through Table (13), the number of paragraphs after **(Psychological balance and emotional control)** (10) paragraphs, and a hypothetical mean of (30), and the arithmetic mean of the research sample was (35.300) and the standard deviation was (3.783), and it was (t. Calculated) (72.269) and the significance level was (0.000) and at the significance level of (0.05). Through the results of the statistical analysis, there are significant differences between the arithmetic and hypothetical averages and in favor of the arithmetic mean of the research sample. The research sample has a high level of psychological balance and emotional control dimension. The researchers believe that this result reflects an important aspect of refereeing performance, as psychological balance and emotional control represent the core of the referee's ability to deal with psychological pressures and changing situations on the field, and the high level of the research sample can be explained by the fact that the referees were able to develop their psychological skills through field experience and participation in psychological refereeing preparation programs. It also reflects the ability of the rulers to face the pressures of playing and deal with changing situations without being affected by negative emotions, which supports the quality of

decision-making and enhances effective match management "The psychological balance of the referees directly affects the quality of the refereeing decisions in critical situations, and that the referee's ability to control emotions helps him to reduce mistakes and improve the quality of performance during competitions" And (الرزقي 2020، 170) The researchers see Also The high level of psychological balance and emotional control of the sample referees is evidence that they possess strong psychological skills that contribute to their ability to perform their roles effectively under the pressure of sports competitions. This result reflects the importance of including psychological training and mental preparation in referees' preparation programs, in order to ensure a higher ability to control emotions during matches and maintain the quality of refereeing performance. General "There is a positive relationship between the emotional balance of the referees and their ability to make sound decisions even in psychologically charged situations, which reflects the importance of psychological preparation and emotional control in enhancing the performance of referees during matches" (الشحات 2021، 242)

### 3.2 Presentation, analysis and discussion of the results of the "Art of Match Management" scale as a whole:

**Table (14)**

**Shows the hypothetical mean, arithmetic mean, standard deviation, calculated t-value, and sig value of the game management art scale as a whole**

Level	sig	(t)	on	Going to	The hypothetical medium	Number of paragraphs
High	0.000	152.521	7.394	145.600	120	40

According to Table (14), the number of The paragraphs of the scale as a whole (the scale of the art of managing the match) reached (40(Hypothetical Paragraph and Medium (120), and the arithmetic mean of the research sample was (145.600) and standard deviation (7.394), and reached (t. Al-Muhtasibah) (152.521) and the level of significance was (0.000) and at a significance level of (0.05), Through the results of the statistical analysis, there are significant differences between the arithmetic and hypothetical averages and in favor of the arithmetic mean of the research sample. The research sample has a high level of the art of managing the match through the paragraphs of the scale and the sample answering it. The researchers believe that These results Confirm The sample referees did not only achieve efficiency in a certain aspect, but their excellence extended to include the organizational, behavioral, cognitive and psychological aspects of managing the match as a whole "The concept of the art of match management requires the referee to be cognitively qualified, psychologically coached, and experienced in using legal rules objectively to contribute to effective refereeing performance and minimizing errors during the course of play" (الحوفي، وآخرون 2021، 53) The researchers also indicate that the training and preparation system of referees in the region or context in which the study was conducted contributes significantly to the development of the art of game management as a whole, so that the referee's skills are no longer limited to one aspect, but have become an integrated system that includes a compatibility between theoretical knowledge, practical skills, and the appropriate psychological response, which reflected positively on the statistical results that came in favor of the arithmetic mean of the research sample This was achieved because of the comprehensive training live "Specialized and integrated training that includes legal knowledge, physical training, technical analysis, and psychological preparation is associated with a higher level of overall performance of referees in all components of match management, including decision-making, game

regulation, and behavior control." (ارزقي 2020، 175) This is consistent with the results of the current study, which showed a high level of skills in the sample referees directly attributable to the continuous preparation and preparation programs they receive Help them or help them to manage the match well and is acceptable to everyone, as their knowledge preparation effectively helps to manage the match correctly." The knowledge preparation and technical analysis of refereeing cases contributes to raising the level of the overall performance of the referees, as it helps to integrate the referee's skills in the various elements of the art of management, and makes the referee able to deal with changing situations within the match quickly and effectively" (مسعود و عبدالسلام 2014، 270).

#### 4. Conclusions and Recommendations:

##### 4.1 Conclusions:

1. A tool to measure the art of match management for first-tier football referees in Iraq has been developed.
2. Most of the referees were positioned at the high level in the scale of the art of game management and its four dimensions.
3. The scale is able to identify differences in the scale areas of young football referees.

##### 4.2 Recommendations:

1. Adopting the Match Management Art Scale for First Division Football Referees.
2. The Match Management Art Scale can be used by the competent committees in the test of referees and the necessity of using it on referees periodically during the sports season, which allows the identification of this variable and also the identification of positive things to support it and the negative to overcome it in the areas of the scale and address it.
3. Conducting other similar studies according to the dysfunctional age groups of the referees.

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#### Attachment (1)

The Measure of the Art of Managing the Match in its Final Form

Dear Hakam, peace be upon you and God's mercy and blessings

I put in your hands the scale of "The Art of Match Management" in my hands hoping for your serious cooperation by reading the paragraphs carefully with a mark in front of each paragraph and under one of the alternatives that carry your point of view, knowing that your answer will be surrounded by complete confidentiality and will only be used for scientific research purposes.

<b>Never apply</b>	<b>Rarely applicable</b>	<b>Sometimes applicable</b>	<b>Often applicable</b>	<b>Always applicable</b>	<b>Paragraphs</b>	<b>t</b>
					<b>I make my refereeing decisions quickly and in line with the course of the match.</b>	<b>1</b>
					<b>My decisions are accurate and in line with the rules of the game.</b>	<b>2</b>
					<b>I enjoy consistency in my decisions throughout the game.</b>	<b>3</b>
					<b>I am not affected by the pressure of the players when making the refereeing decision.</b>	<b>4</b>
					<b>I am keen to achieve justice between the two parties in all my decisions.</b>	<b>5</b>
					<b>I mentally review my refereeing position before making a decisive decision.</b>	<b>6</b>
					<b>I can distinguish between similar errors while playing.</b>	<b>7</b>
					<b>My decisions reflect my good understanding of the spirit of the law, not just its text.</b>	<b>8</b>
					<b>I deal firmly with controversial cases without hesitation.</b>	<b>9</b>
					<b>I take responsibility for my decisions even in difficult situations.</b>	<b>10</b>
					<b>I manage to impose my refereeing personality from the start of the match.</b>	<b>11</b>
					<b>Control the tempo of the game for the normal course of the game.</b>	<b>12</b>

					<b>I deal wisely with the protests on the pitch.</b>	<b>13</b>
					<b>Prevent tension between players from escalating during the match.</b>	<b>14</b>
					<b>I use my refereeing style to maintain the discipline of play.</b>	<b>15</b>
					<b>I deal with the changing conditions of the match with flexibility.</b>	<b>16</b>
					<b>I can bring calm back to the game after tense situations.</b>	<b>17</b>
					<b>I enforce that my decisions be respected by the players.</b>	<b>18</b>
					<b>Take control of the game without overstepping play.</b>	<b>19</b>
					<b>Balance firmness and smoothness in match management.</b>	<b>20</b>
					<b>I communicate clearly with the players when making decisions.</b>	<b>21</b>
					<b>I use appropriate body language to support my refereeing decisions.</b>	<b>22</b>
					<b>Make sure to choose the right words when talking to players.</b>	<b>23</b>
					<b>I have a good ability to persuade on the pitch.</b>	<b>24</b>
					<b>I communicate effectively with the refereeing staff during the match.</b>	<b>25</b>
					<b>I respond appropriately to legitimate player queries.</b>	<b>26</b>
					<b>I use refereeing references in a clear and understandable way.</b>	<b>27</b>

					<b>My communication style helps to minimize protests.</b>	<b>28</b>
					<b>I can communicate my decisions without creating stress.</b>	<b>29</b>
					<b>I take into account the psychological differences between the players when communicating with them.</b>	<b>30</b>
					<b>I enjoy calm while managing difficult situations in a match.</b>	<b>31</b>
					<b>I control my emotions no matter what the pressure of the game is.</b>	<b>32</b>
					<b>My potential mistakes don't affect my subsequent performance in the match.</b>	<b>33</b>
					<b>I deal with the pressure of the masses with confidence.</b>	<b>34</b>
					<b>I stay focused throughout the game.</b>	<b>35</b>
					<b>I can separate my personal feelings from my judgments.</b>	<b>36</b>
					<b>I deal with criticism on the pitch with sportsmanship.</b>	<b>37</b>
					<b>I have self-confidence when making critical decisions.</b>	<b>38</b>
					<b>I don't lose my temper when the protests are repeated.</b>	<b>39</b>
					<b>I quickly regain my psychological balance after erotic situations.</b>	<b>40</b>