



Rationing a variety of tests to develop some skills in terms of time and accuracy of the maximum performance of futsal players

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Abstract

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The aim of the research is to: - Codify a varied test to develop some time-sensitive and accurate skill abilities in the maximum performance of futsal players, determine the standard scores and levels of the varied test of time-sensitive and accurate skill abilities in the maximum performance of futsal players. The nature of the problem of our current research determined following the descriptive study approach in the survey method. The researcher selected a representative sample of the total community of players from the clubs of Baghdad Governorate in futsal , as the total research community reached (94) players for the season (2024 – 2025), and the survey sample consisted of (12) players from the Air Defense Club in futsal who were deliberately selected from the original community for the research , and the eye of the test ration consisted of (70) players , as they were deliberately selected from the total community, to form a percentage of (65,8%).

The researcher used the statistical software (SPSS) to process the research results. The researcher concluded from his study that tocodify a varied test to develop some skill abilities in terms of time and accuracy in the maximum performance of futsal players , the grades and standard levels were developed for a varied test to develop some skill abilities in terms of time and accuracy of the maximum performance of futsal players. The test achieved a high degree of ability to measure the accuracy and time of the performance of the players for the skills discussed . The suitability of the varied skill test in terms of the time and accuracy of the performance of futsal players. The test is based and estimated on the accurate measurement of the capabilities of the players and setting the standard and the appropriate level for them , and the possibility of the test to distinguish between the level of players and their placement in specific and clear standard levels .

1.1 Introduction

The digital development in all sports fields and the progress in terms of achieving international figures is the result of several multiple factors that have combined to reach advanced levels in the skill aspects, including relying on different and varied training methods and means to develop the skill aspect of football players for halls, and there are several and varied exercises that contributed to the development of this football game for halls. One of these exercises is the use of skill complex exercises that are based on exercises that approach the performance of the player during the game and are through exercises involving a number of players and contain more than one skill and implemented during the training unit. Therefore, the importance of research lies in integrating these basic exercises as an auxiliary and complementary part to try to reach development in those skills of football players in general and soccer for halls in particular to improve the skills of players in order to achieve the highest levels.

1-2 Research Problem: -

The search for diverse and multiple ways to train in any sport may help and contribute to the rapid development of skill qualities among players of different games, which is reflected positively on the skill level while competing in matches, and through the researcher's knowledge of being a player and a specialist in this field, and through his follow-up of the football teams for lounges. Because the football game for lounges depends on the elements of skill and rapid surprise, he noted that there is a weakness in some of these elements in terms of the speed of players to perform more than one skill at a time, and the researcher is likely to weaken that weakness to the lack of use of diversity in training applications, so we deliberately studied the current problem by preparing a special vehicle exercise that contains most of the skills used in the game to achieve goals from different situations and apply them during training units in order to contribute to the development of the skills of football players for lounges.

1-3 Research Objectives: -

1- Rationing a varied test to develop some skills in time and accuracy with the maximum performance of futsal players.

2- Determining the standard scores and levels of the varied test of skill abilities in terms of time and accuracy with the maximum performance of futsal players

1-4 Areas of Research: -

1-4-1 Human Sphere: Futsal players in Baghdad Governorate.

1-4-2 Time Range: For the period from 1/9/20 24 to 15/10/20 24.

1-4-3 Spatial scope: Club stadiums in Dhi Qar Governorate with football for salons. 2), chap.

Research Methodology and Field Procedures : -

By the approach, we mean "the specific logical steps followed in dealing with problems, phenomena and treatments of practical issues in order to reach real discoveries" (**Abdullah Al-Kandari , Muhammad Al-Dayem, 1999 , 107**), so we mean that each research has a special approach to solving a specific problem, and the researcher has used the descriptive research approach, which is defined as "a form of systematic scientific analysis and explanations to describe phenomena or problems and to classify them, analyze them and subject them to careful studies" (**Kazem Al-Jabri , 2010, 278**), so the nature of the problem in the current research has determined that the researcher must follow the descriptive research approach in a survey method.

2 – 2 The research community and its samples : -

The concept of the research sample means a fully representative part of the original research community, "as they are the study of a specific part of an entire community through which we can obtain results that are representative of the total community (Muhammad Allawi , Muhammad Radwan , 1988, 213), so the researcher chose a community for his research consisting of the players of the clubs of Baghdad Governorate in futsal football , as the total research community reached (94) players for the sports season (20 24 – 2025) , the research community and they were divided as follows as shown in Table (1).

Distribution of the research sample and determine the percentages

S r	Gym name	Total Playe rs	Reconnaissance Trial Players	Codin g Samp le Playe	Players disqualified

				rs	
1	The Police	16		14	2
2	Baghdad Municipality	14		13	1
3	Anti-aircraft warfare	15	12		3
4	The PMF	17		15	2
5	Uh... Air Force.	15		13	2
6	Police Mechanisms	17		15	2
Total		94		70	12
Percentage		100%	14	8%	14

2-2-1 The exploratory research sample: -

The exploratory sample of the current research was determined from (12) air defense players in futsal who were deliberately selected by the researcher from the original community, and he also conducted the initial experimentation of the research tools and scientific laboratories for the various skills test, to form a percentage of (14.1%).

2-2-2 Research sample for rationing : -

The researcher chose a rationing sample from the original research community and with (70) players, he deliberately selected them , to form a percentage of (65.8%).

2-2-3 Homogeneity of the research sample: -

The homogeneity of the research sample in the measurements was conducted for each of (the length of the player, the mass of the player, the player's time and training age) and table (2) showing the homogeneity of the rationing sample using the torsion coefficient as the value is between (+3) .

Schedule 2-

It shows the homogeneity of the research sample in variables (length , mass , chronological and training age)

Variables	Unit of measure	Arithmetic Mean	Standard Deviation	Mediator	Modulus of torsion
Length	cm	UNTRANSLATED_CONTENT_START 87,10 UNTRANSLATED_CONTENT_END	4,120	;2039-87-4	0.067
cluster	kg	21 November	553	23.33	0.050
Chronological age	Year	11-14	2,221	10,20	247
Training Age	Year	2,20	2,218	2	214

2-3 Means and tools of research : -

((Arabic sources, foreign sources, the Internet, a data form , a variety of skills test , football stadiums for halls , measuring tapes , footballs for halls (10), a whistle (4), an electronic calculator, an electronic stopwatch, a digital camera, a photographic camera (Canon), plastic poles (12), human poles with a height of 160 cm, small targets made of wood)) .

2-4 The final specifications of the vocabulary of codifying a varied test to develop some skill abilities in terms of time and accuracy of the maximum performance of futsal players: -

Test Name: - A varied test to develop some skill abilities in terms of time and accuracy of maximum performance.

Purpose of testing : - Measure the speed and accuracy of quenching, rolling and aiming.

Tools used : Football halls size (400-440g) (10), measuring tape, adhesive tapes, whistles (4), determining the test area with a diameter of (1m), a legal target (3x 2) m, a flex material placed on the target, on which three parts of the dimensions of each part (1mx 30cm) are drawn, a specific area for targeting (1.30x1.30m) (2), a digital camera (4).

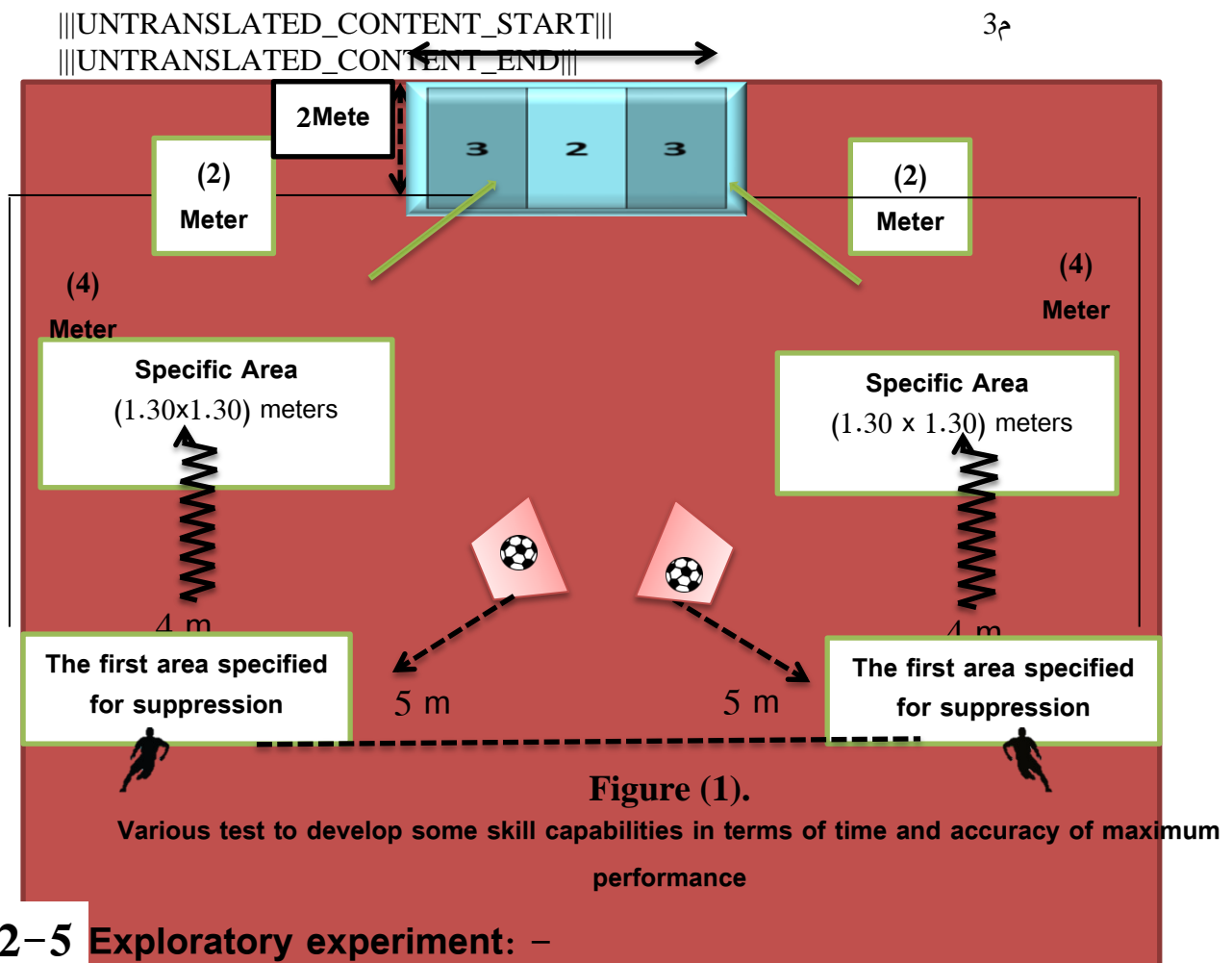
Performance Description: The laboratory player stands behind the area designated for suppression (1), which is specified through the meeting point (3) meters to the right of the target with (6) meters in front of the target line, which forms the diagonal distance between the area designated for suppression and the target. At the whistle, the assistant player throws (a ground ball) in the direction of the suppression area (1), and the player tries to impose his control over it (suppression of the ball) , and then runs with the ball (rolling), until he reaches the target area, which is (4) meters away from the area designated for suppression, after which the player scores in reverse to the direction of the target according to importance and difficulty. All tested players perform four transformers sequentially, two from the right and two from the left .

Performance conditions: ((Stopping the ball within the damping area, performing rolling in the way of pulling down , when losing control of the ball during rolling, a laboratory is given (zero) degrees of rolling accuracy, performing scoring skill within its specified area, and performing the test at maximum speed)) .

Method of **scoring** : ((4) attempts by two attempts from each side, (one score) for successful suppression, (zero) scores for unsuccessful suppression, one score for successful rolling, (zero) if the player loses control of the ball, (3) scores when scoring in field No. (3), two scores when scoring in field No. (2), one score if the ball touches one of the players or the crossbar, zero scores if the ball goes outside the target limits, and the accuracy of performance, the highest score is (24) degrees E (5) for suppression, (5) for rolling and (12) for scoring, in terms of time, it is extracted from the digital camera film through the (kinovia) program placed on the computer where it is calculated as (1/1000) from the second .

– Time is calculated by adding the times for four attempts, and the time for each attempt is calculated from the moment of putting out the ball by the laboratory through the skill of rolling until the moment the laboratory ball reaches the divided goal into multiple parts, then the total accuracy scores are calculated and the total time is divided by the FTS law as follows: –

$$\frac{\text{مجموع الدرجات للدقة}}{\text{المجموع للزمن}} = \text{الاداء المهاري}$$



2-5 Exploratory experiment: -

The exploratory experiment was conducted on a sample of (12) players from the Air Defense Club football halls according to the date fixed in Table (3). The aim of the experiment was to " verify the safety of the devices and the accuracy of their performance. The researcher learned about the time of performance of each of the players for the test used , the players' understanding of the requirements of the test , and the training of the team to understand the test."

2- 6 The main experiment of the research : -

Through the survey experiment, we found the accuracy and safety of the tools, their accuracy and understanding of the test. The researcher applied the various test of some skill abilities in terms of the time and accuracy of the maximum performance of the futsal players on the rationing sample and their total number was (70) players. The researcher distributed the tests by two days for each club and according to the dates fixed in Table (3).

Table (3)

Explains the mechanism of distributing the test procedure to the reconnaissance and rationing sample

Sr	Club name	Date of the experiment	Club name	Date of trial
1	Anti-aircraft warfare	Sunday (15/9/2024) exploratory experiment	The PMF	Thursday (9/26/2024) Major Experiment
2	The Police	Sunday (9/22/2024) Major Experiment	Uh... Air Force.	Sunday (9/29/2024) Major Experiment
4	Baghdad Municipality	Tuesday (9/24/2024) Key Experiment)	Police Mechanisms	Tuesday (1/10/2024) Key Experience

2-6-1 Discriminatory ability (strength) of the varied test in terms of time and accuracy of maximum performance: –

After the completion of the main experiment of the sample and the collection of test data for the variables and the research sample, raw scores for the test were arranged ascending from the lowest to the highest. The percentage (27%) of the higher scores and (27%) of the lower scores were adopted in order to know the ability of the test to differentiate and distinguish between the high level group and the low level group. The test (t) was used for independent research samples, and after conducting statistical data treatments , it shows us that the test under study has a (strength) that distinguishes between the upper and lower groups because the semantic values are smaller than the level of significance (0.05) at a degree of freedom (68) , as shown in Table (4).

Table (4)

Shows the ability and strength of the varied test in terms of time and accuracy of maximum performance

Test Name	Superset (Maths.)		Group of Dunia		Calculated t-value	Contingent value	Statistical significance
	Arithmetic Mean	Standard Deviation	Arithmetic Mean	Standard Deviation			
Testing various	0.388	0.09	0.322	.022	112.	0.000	Distinguish

320	.327	0,048	26 0544	.011	322	- 0.044	0,24	0,18
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2-6-4 Video imaging: – To identify the time and accuracy of the maximum performance of the various skill test and to obtain the scientific formula of the variables , and to verify the implementation of the research sample of the variables in an objective manner, the researcher used video technology for kinetic analysis because these variables face difficulty to identify them through observation , as a camera (Sony) was used (4) with frequencies (140) images for each camera, and work was done according to the following points:

- I put the camera on a tripod .
- Use the scale (80cm) as a marker in the background of the image .
- The camera was placed sideways at a distance of (5meters) as a horizontal distance during the player's performance of the test .
- The camera was placed in front at a distance of (3meters) as a horizontal distance during the player's performance of the test .

Biomechanical analysis using computer programs: – The researcher extracted the research variables through the software in the computer to identify the accuracy and maximum performance time of the various skill test, as the Kenova program was used, through the player's film during the performance of the test .

2-7 Means of statistics : - The researcher used the statistical program (SPSS) for digital treatments.

Presentation of findings, analysis and discussions : -

3-1 Presentation of the results of the grades and standard levels of the varied test in terms of time and accuracy of maximum performance : –

The researcher presented the results of the various skill test scores for the rationing sample of (70) players after ascending order, to the degree of the aligned criterion and the degree of the modified criterion, the rest of the rationing of the test by deriving a standard level for it .

3-1-1 Reviewing the values of the arithmetic media, the standard deviation, the median and the value of the torsion coefficient of the test.

One of the requirements of the research methodology is to display statistical parameters of the test results before starting the derivation process for the calibrators with high technology, so we presented the results to the statistical parameters of the test with various skills in terms

of the time and accuracy of the maximum performance of the controlled sample (70) players, and table (6) shows this.

Table (6)

Values for arithmetic media, standard and median deviations, and the value for the varied test torsion coefficient in terms of time and accuracy of maximum performance

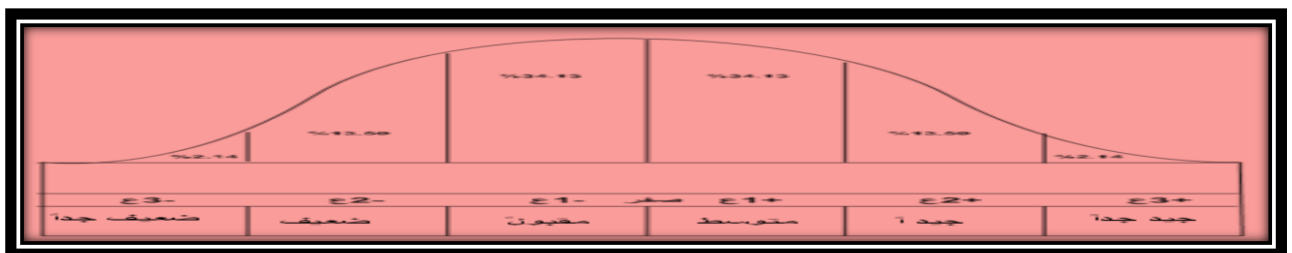
Diverse Skills	Units of measurement	Arithmetic mean	Broker	Standard deviation	Coefficient of torsion
Testing various skills in terms of time and accuracy of maximum performance	Second Degree	.233	.344	0,47	224

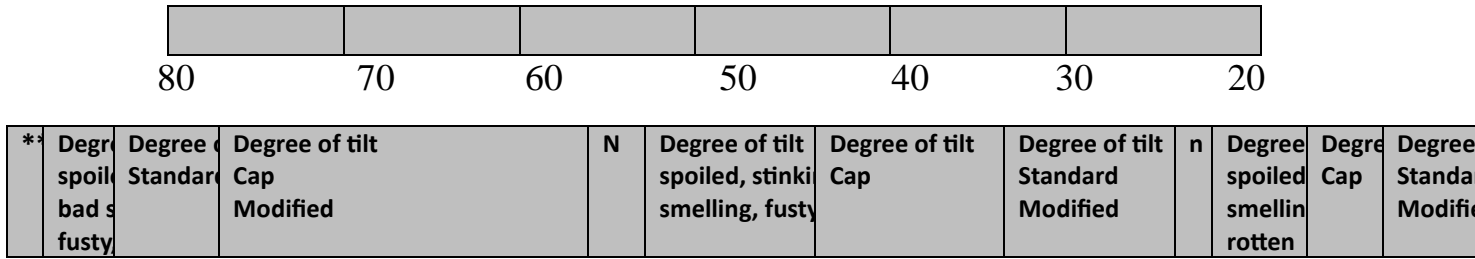
Credits (C)

Table (6) shows that the mean of the results of the various skills test in terms of time and accuracy of maximum performance was (0,233) with a standard deviation of (0.47) , and a median of (0.344) , and the torsion coefficient was (0,224-).

3-1-1 Presentation of the results of the grades and standard levels of the main sample (rationing sample):

In order to complete the procedures for rationing the test by finding standard scores and levels for the rationing sample of (70) players and through which it is possible to judge the measurement of the level, time and accuracy of the various skill performance of players in football for the halls, and in order to determine the standard scores and levels, the researcher used the curve for natural distribution (Kaos), which is the most common distribution in the research field, because many of the different qualities and characteristics measured by the field are such that their distribution approaches the natural curve (Nizar Al-Talib , Mahmoud Al-Samarrai, 1981 , 101) , and Figure (2) shows the distribution.





T-Scores

Figure (2) Curve for normal distribution

3-2 Presentation of the results to determine standard scores and levels of the test varied in terms of time and accuracy of maximum performance and analysis of the rationing sample: -

Raw scores, standard scores (Z) and a modified standard score for sample scores were shown for the various-skilled test and table (6) shows this .

(7)

Raw scores, standard scores, and modified standard scores ranked ascending for the test are varied in terms of time and accuracy of maximum performance

1	0,15	2-16	27.90	24	0,24	-0.49	44.57	48	0.33	0.10	50.03
2	0,15	2-16	27.90	25	0,24	-0.49	44.57	49	0.33	0.10	50.03
3	0.16	-2,03	29.18	26	0,24	-0.49	44.57	50	0.33	0.10	50.03
4	0.16	1 – 90	00:30:46	27	0,24	-0.49	44.57	51	0.33	0.10	50.03
5	0.16	1 – 90	00:30:46	28	0.25	-0.23	45.13	52	0.33	0.10	50.03
6	0.17	-1,78	31.74	29	0.25	-0.23	45.13	53	0.33	0.10	50.03
7	0.17	-1,78	31.74	30	0.25	-0.23	45.13	54	0.34	0.15	A/51/31
8	0,18	1-64	33.03	31	0.25	-0.23	45.13	55	0.34	0.15	A/51/31
9	0.19	1-51	34.31	32	0.25	-0.23	45.13	56	0.34	0.15	A/51/31
10	0.19	1-51	34.31	34	0.31	-0.15.	46.46	57	0.35	0.30	52.59
11	0.19	1-51	34.31	35	0.31	-0.15.	46.46	58	0.35	0.30	52.59
12	0.19	1-51	34.31	36	0.31	-0.15.	46.46	59	0.35	0.30	52.59
13	0,20	1-39	UNTRANSLATED_CONTENT_START 35.61 UNTRANSLATED_CONTENT_END	37	0.31	-0.15.	47.46	60	0.35	0.30	52.59
14	0,20	1-39	UNTRANSLATED_CONTENT_START 35.61 UNTRANSLATED_CONTENT_END	38	0.32	-0.03	47.74	61	0.35	0.30	52.59
15	0,21	13 January	38.16	39	0.32	-0.03	47.74	62	0.36	0.35	53.87
16	0,22	13 January	39.44	40	0.32	-0.03	47.74	63	0.36	0.35	53.87
17	0,22	13 January	39.44	41	0.32	-0.03	47.74	64	0.36	0.44	53.87
18	0,22	13 January	39.44	42	0.33	0.10	50.03	65	0.37	0.57	55.15
19	0,23	87.	40.72	43	0.33	0.10	50.03	66	0.37	0.57	55.15
20	0,23	0.62	43 (28%)	44	0.33	0.10	51.03	67	0.37	0.57	55.15
21	0,23	0.62	43 (28%)	45	0.33	0.10	50.03	68	0.37	0.57	55.15
22	0,23	0.62	43 (28%)	46	0.33	0.10	50.03	69	0.37	0.57	55.15
23	0,24	-0.49	44.57	47	0.33	0.10	50.03	70	(n = 65), (q = 0.277) (+ p = 0.057)		

It is clear to us from Table (7) that the mean of the standard scores has reached (0,277) with a standard deviation of (0,057) and that the value between (3 ±) is that the standard scores of the test are at a normal moderate level, if we extract these values by obtaining a

raw score for the players and what they met in the last field of the table, which represents an index score extracted after the adjustment of the scores of the standard according to the equation $(Z\text{-score} \times 10 + 50)$, and in order to identify the standard levels of the test, the researcher also conducted the tabulation of Table (8) to set standard levels and their repetitions based on the values of the visual standard scores and as shown in Table (7) and shown in Figure (2).

Table 8: Regular Budget by Category of Expenditure
Standard levels for a varied test in terms of time and accuracy of the
maximum performance of the rationing sample

Standard score	Modified Standard Score	Standard Level	Player number (repetitions)	Percentage
-2	29 and under	Very weak	2	14
(- 1.99) - (-1)	o 30-39	Weak	10	10%
(- 0.99)_(0)	49	Accepted	16	% 16
(0.01) _ (1)		Average	28	14
(1.01) - (2)	UNTRANSLATED_CONTENT_START 60 - 69 UNTRANSLATED_CONTENT_END	Good	14	14
2.0 ± 0.1	70 and above	Very Good	0	0%

(n = 65) (x = 0) (+ n = 1)

Table (8) shows that the players within the very weak level were (2) in percentage (2.14%), and within the weak level the number of players was (10) in percentage (10.66%), and the players within the acceptable level were (16) in percentage (16.16%), and the players within the average level were (28) in percentage (28.14%), and the players within the good level were (14) in percentage (14.88%), and the players within the very good level were (0) in percentage (0%). In these ratios, the test achieved (5) standard levels distributed within its players' determinants in a normal distribution.

According to the analysis of these results, we find that the research sample was limited to the results of the various skill test within the two levels (acceptable, intermediate), as its percentage was respectively (20.10%, 38.22%).

The researcher attributes the restriction of the result of the rationing sample within those levels to the increase in the physical fitness of the players and the fact that these skills are associated with physical abilities and motor abilities, because, as is known, the greater the physical fitness, the greater the ability to perform motor skills well, and all this confirms the dependence on the interrelationship between physical abilities and the performance of skill movements. The higher the physical abilities, the better the

ability to perform the technical aspects. Many studies have proven that there are permanent positive relationships between the fitness of the player and the accuracy of performance according to the type of sports activity practiced, and the individual player cannot master the various skills essential to the types of sports activities, which in the event that he lacks the physical capabilities necessary for this particular type of activity and high performance. (Sari Ahmed , Norma Salim ,2001, 31).

This indicates its potential to improve the development and improvement of the skill performance of futsal, which did not come by chance or randomly, but rather as a result of training to perform various skills in conditions similar to the conditions of play , which confirms the ability of the test to develop the level of performance and worked to improve the skill side of the players , as Kevin Keegan confirms that "the most important in futsal training is the development of individual skill performance and the work of the team as a group" (Hughes ,1997, 8), because the futsal game performs a variety of skills at the same time, "and due to the convergence of all the opinions of specialists and coaches and agreed to see the diversity of skills in training and training in conditions similar to the conditions of play" (Mohsen and Naji ,1972, 7).

The researcher believes that the rationing of a diverse test has an impact on the development of the skill capabilities of football for halls , as in this test the player is given to perform various skills in conditions similar to the circumstances of the game .

Figure. 2.

Shows the repetitions of players at the standard levels of the varied test in terms of time and accuracy of maximum performance

CHAPTER IV

Conclusions and Recommendations

4-1 Conclusions: -

- 1- Various test codification was reached to develop some skill abilities with time and accuracy for the maximum performance of futsal players.
- 2- Standard grades and levels have been set for a varied test to develop some skill abilities in terms of the time and accuracy of the maximum performance of futsal players.
- 3- The test achieved a high degree of ability to measure the accuracy and time of the players' performance of the skills studied.

- 4- The suitability of the varied skill test in terms of the time and accuracy of performance of football players for lounges .
- 5- The test is based and estimated on the accurate measurement of players' abilities and setting the appropriate standard and level for them .
- 6- The possibility of testing to distinguish between the levels of players and put them in specific and clear standard levels.

2. Recommendations.

- 1- However, it is useful to test the diversity of skills in the time and accuracy of the maximum performance of football players for futsal in knowing the skill level of players because it is one of the means of objective evaluation on football clubs for futsal.
- 2- The need to generalize the standard schedules of the multi-skilled test with the time and accuracy of the maximum performance of football players for the halls , to be used in the selection and continuous evaluation processes to identify the capabilities of the players and their classification .
- 3- Adoption of the standardized test by the coaches of football clubs for the purpose of knowing the various skill abilities of the players .
- 4- Adopting the standard level reached through the use of the standard table developed by the researcher for the final test vocabulary when selecting players in football for the halls.
- 5- Conducting a similar study on futsal players in different governorates.

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