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# *Quantification of the contribution of the most important motor and functional abilities to the accuracy of the performance of some offensive skills in basketball for the players of the National Center for the Care of Sports Talent*

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The fundamental research question was the breach between the intellectual understanding of the variables and the field existence of the academy substitute, as academies in Iraq in general and the University of Dhi Qar substitute contract an illness various questions, including at the level of allure locale and contest accompanying additional universities, containing at the level of operating allure assignments towards the beneficiaries, as these questions cause a decrease in the level of conduct of allure tasks on account of either laws and priestly directions or on account of the lack of wherewithal and skills necessary to manage allure functions by dealing and directing matters at the academy.The aim of this research search out study the powerful friendship of the administrative climate in crystallizing the connection betwixt professional unity and task creativity and weighing the levels of variables examined The research was attended on the supervisors filling a place administrative tasks in the management of the University of Thi-Qar the one were intentionally picked, where (214) inquiry was created for one analyst and after resolving the results, it enhanced clear that the administrative humidity has an affect the relationship middle from two points professional unity and task artistry at the level of individual compatibility professionally accompanying welcome institution of higher education and artistry in his work The most influential pieces of advice search out devote effort to something internal active environments by occupied to organize dependable rules to enhance their levels and level of work and knowledge by professors by construction an administrative culture established the incident of material and cognitive work requirements and improving professional rapport, that is individual of the main indicators In the character of acting of verdict adjusting factors for the education accompanying the within and outside environments.

**11 Introduction and importance of research:**

With the continuous development of the game of basketball, there is an urgent need to search for the best ways to achieve outstanding results. In light of this great progress witnessed by many countries of the world, a number of specialists and coaches are seeking to develop this game, which has become the focus of their attention. This is done by focusing on conducting periodic and sustainable tests to measure the physical, motor and functional abilities of the players, which contributes to raising the level of skill performance and developing tactical and technical methods and diversity of skills. Undoubtedly the level of progress that players can make to reach high achievements. The importance of this research lies in identifying the percentage of the contribution of motor and functional abilities to the accuracy of the performance of some offensive skills of the players of the National Centers for the Care of Sports Talent The research aims to provide accurate scientific indicators for coaches, which helps them in using advanced training methods during the training units, and thus contributes to improving the accuracy of performance in the implementation of the technical skills required during matches, which leads to achieving high skill performance and winning the desired results. Prepare basketball. One of the sports activities that have reached an advanced level as a result of the entry of the scientific aspect into all its aspects because it is one of the games that have gained wide attention and fame due to the nature of the fast game and the strength it contains in defense and skill in attack, and because it contains many individual and complex basic skills It has become necessary to detect. About the trainee in order to achieve upgrading and proficiency in movement and excellence in it and the advantage of sports in general and basketball in particular the need for high levels of training and mastery For the various skills required by this game accompanied by excitement and enthusiasm and for the purpose of upgrading this game to achieve victory, the need arose to research the details of these. The game and stand on the determinants of the impact on the results of the game and the level of achievement in it and the requirements for success

**1-2 Research problem:**

Through the researcher's access to many different studies that dealt with determining the levels and standards for various games and events, and her visit to the national centers for the care of sports talent and her familiarity with the matches, the problem emerged in the mind of the researcher through the following question: Does the motor and functional ability have an impact on the performance of the players for the offensive skills of basketball for junior players at the National Center for the Care of Sports Talent in Baghdad, which can express to us the efficiency of the performance of the players?

Therefore, the researcher identified the relationship between the motor and functional abilities of the players' performance of the offensive skills of basketball, which helps in reaching the upper levels and achieving advanced levels at the local and Arab levels.

**1-3 Research Objectives:**

- Identify the most important motor and functional abilities and some technical skills enjoyed by the players of the national centers in Baghdad in basketball.
- Identify the relationship between the most important motor and functional abilities and the accuracy of the performance of some offensive skills of the players of the National Centers for Giftedness Care in Baghdad in basketball.
- Identify the quantitative estimation of the contribution of the most important motor and functional abilities to the accuracy of the performance of some offensive skills of the players of the National Centers for the Care of Talent in Baghdad in basketball.

**1-4 Research hypotheses:**

1. There is a statistically significant relationship between motor abilities and the performance of some offensive basketball skills.
2. There is a statistically significant relationship between the functional abilities and the performance of some offensive basketball skills among the players of the National Centers for the Care of Sports Talent**.**

**1-5 Research Areas:**

1.5.1 Human field: players of the National Center for the Care of Sports Talent in Baghdad

1-5-2 Time Domain: The research was conducted for the period from 13/1/2025 to 8/3/2025

1.5.3 Spatial area: the indoor sports hall of sports talent centers in the Ministry of Youth and Sports

**2- Research Methodology and Field Procedures:**

**21 Research Methodology:** The researcher used the descriptive approach with survey methods and correlation to identify the cases studied in the research. The survey method is defined as a study carried out by the researcher to detect the problem of society.

**22 The research sample community**: The research community determined from the players of the National Center for Sports Talent Care in Baghdad, their number is (60), and after excluding (10) players absent from the tests, so the number of members of the research sample became (50) players, and they constitute a percentage of 83.33% of the original community, as in Table (1), and the research sample was selected in a deliberate way

**Table (1)**

**Shows the description of the population and sample of the research**

| Percentage | Sample | society |
|---|---|---|
| 83.33% | 50 | 60 |

**23 Devices and tools used in the research:**

- Arab and foreign scientific sources.
- Tests and metrics.
- Video camera type SONY (Sony).
- The computer is a Dell type.
- Electronic stopwatch type (Casio).
- Tape measure
- 4. Signs 4.
- Wooden box height (1m).
- Two (2) medical balls. Weight 2 kg.
- Colored adhesive tapes.
- Basketball.
- Whistle

**24 Field Research Procedures** :

**1.4.2. Kinetic tests used in research:**

**First test:**

**Test name:** Multi-sided running[1].

**Purpose of the test**: Measurement of agility.

**Tools**: stopwatch, four medicine balls... The test is planned so that the distance between the start and finish line and the midpoint is (540) cm, and the distances between the midpoint and the other three points are determined (540) cm.

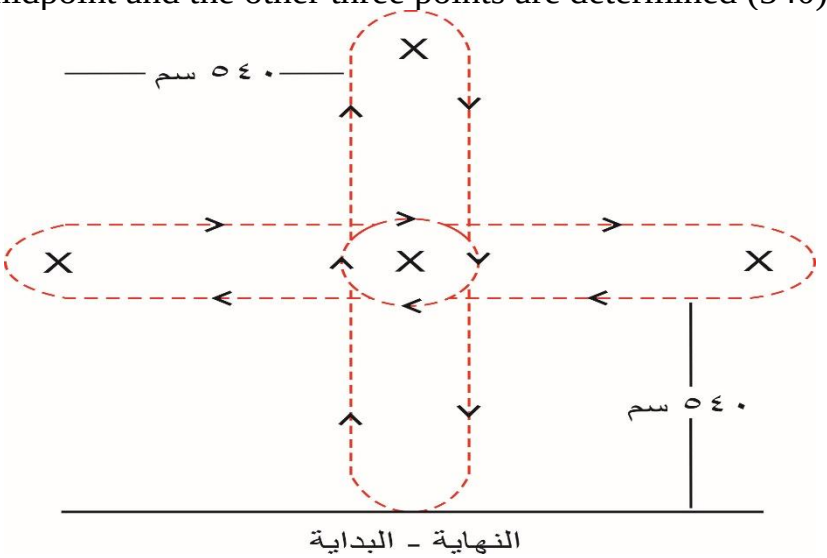


**Figure (1) shows how to perform the multi-side running test**

**Performance specifications:** The tester stands behind the starting line, when hearing the start signal, runs at full speed, taking the route shown in the figure until it crosses the finish line with its entire body and calculates the time in seconds.

[1] . Mc cloy.c. and Young, N.D. (1954): Tests and measurements in physical Education, Application – century- crofts inc. publishers New – York, p.77.

Conditions: 1- The laboratory must adhere to the route specified for the test, and in the event of any error, try again.
2- Each laboratory has two attempts to record the best in time (the least in time).
Registration: Each laboratory performs twice, with the best recorded in seconds.
Criteria and levels: The criteria for both sexes were divided into four levels: poor, average, good, excellent.

**Table (1) shows the standards and levels for both sexes for the fitness test**

| Excellent | Good | medium | Weak | Gender |
|---|---|---|---|---|
| 10.4 and less | 11,3-10,5 | 12,4- 11,4 | 12.5 s and more | Ladies |
| 9.9 and under | 10,9-10,000 | 11,9-11,000 | 12,000s and above | Men |

**Second test:**
**Test name**: Numbered circuit test[2].
**Purpose of the test:** Compatibility of the eye with the legs.
**Tools:** stopwatch, chalk and whistle.
Performance Description: Draw on the ground eight circles diameter of one circle (60 cm) as shown in Figure (15) and number circles on the stop of what is shown in the drawing and the laboratory stands in circle No. (1) and when hearing the start signal jumps feet together to No. (2) and then to (3) and to (4) and so on until the eighth circle and this happens at full speed.
Registration: The laboratory is given two attempts and the least time attempt is counted to travel through the eight circuits.

**3.4.2 Functional tests used in research:**

**First: VC (**(VC)3 Dynamic Capacitance Test

**Test objective:** Measurement of vital capacity.

**Performance Description:** The tester holds the rubber blow tube attached to the spirometer from a standing position and then begins to take the maximum possible inhalation, after which it pushes the maximum possible exhalation into the rubber tube and the device measures.

**Registration:** The team records the results they obtained from the device, which represent the volume of air driven during exhalation in liters.

**Second: Vertical jump test of stability** (4)

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- Hassan Hayawi (et al.), The Concept of Physical Fitness and its Various Dimensions, 2nd [2] Edition (Amman, Dar Al-Awael for Publishing and Distribution, 1987), p. 77.

- Ahmed Muhammad Ismail Al-Ani: The effect of interval training on some central and [3] peripheral variables and the achievement of running (1500 m). Master Thesis, University of Baghdad / College of Physical Education, 2001, p. 34.

- Muhammad Nasr al-Din Radwan, op. cit., pp. 122-124.[4]

**Test objective:** Measurement of anaerobic capacity (phosphagine).
**Tools and devices:**

- A smooth wall with a height of at least 3.60 m from the ground.
- Cut chalk or lime powder, and a piece of cloth to wipe the chalk marks left by the laboratory after the test is completed.
- A wooden graduated ruler can be used as a measure so that it is fixed to the wall instead of the blackboard
- Medical scale to measure body weight.

**Performance Specifications:**

- The laboratory performs some exercises for the purpose of warming up before starting the test.
- The tester grabs a piece of chalk, then stands facing the wall with the side, and then stretches the arm as high as possible to make a chalk mark on the board or wall.
- The tester swings the arms back with the trunk bent forward and down and bends the knees to the right angle position only, followed by extending the knees and pushing the feet together to jump up with the arms strongly swinging forward and up to reach the maximum possible height, so that he makes a mark with chalk on the board or wall at the highest point he reaches, and gives the tester three attempts to calculate the best result.

**Registration method: The** short anaerobic capacity (phosphagine) is calculated in the vertical jump test according to the following equation:

$$\text{Anaerobic capacity} = 2.21 \times \text{body weight} \times \sqrt{\text{jump distance}}$$

and a unit of measurement kg . m/s.

**3.4.3 Skill tests used in research:**

**First test:**

**Test name**: Measurement of scroll accuracy from top[(5):]

**Purpose of the test:** to measure the accuracy of scrolling from above.

**Tools:** Volleyball tower, Swedish seat placed in front of the basketball tower and at a distance of (4) m and volleyball.

**Performance specifications**: The tester stands in front of the Swedish seat and performs the passing (30) times on the basketball ring, provided that the ball passes inside the ring without touching the board.

**Sign up:**

- 4 points for each correct pass in which the ball enters the ring without touching it.
- 3 points for each correct pass that the ball enters after touching the ring.
- 2 points for each correct pass with which the ball touches the ring and does not enter.

- 1 point for each correct pass in which the ball touches the board and enters the ring.
- The maximum score for the test is 120.

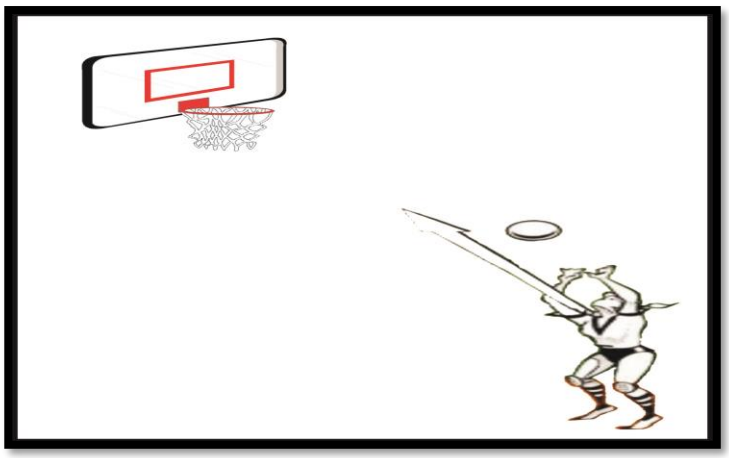

**Figure (2) shows the performance of the scroll accuracy test from above**

**25 Scientific foundations of tests:**

First: Authenticity of the test:

Honesty is one of the most important basic qualities of a good test, and it is the basis for building tests because of the benefit this attribute provides for various tests and to identify the components of the test and the capabilities of the individual later, "and honesty has many definitions, the most important and most famous of which is quoting the one who defines honesty as the degree of validity by which the test measures what we want to measure", and in the sense that the honest test measures the function that was developed to measure it and does not measure another instead of it or in addition to it Through the researcher's access to previous sources and studies that adopted skill tests and found that they are codified and at the same age, the researcher used virtual honesty and constructive honesty (content by presenting the test to experts in the field of specialization.

**Second: Stability of the test:**

The good test: "is the test that gives close results or the same results, as it was applied more than once in the same conditions" (In order to verify the stability of the test, the researcher used the method of testing and re-testing, and the results of the tests were taken in the first exploratory experiments on the exploratory samples for a week, and the tests were repeated after a week from the date of the start of the tests, and the sample consisted of (50 ) players, and the correlation coefficient was calculated using the simple correlation law (Pearson) between the two applications as an indication of the stability rate.

**Third: Objectivity of the test:**

The tests used by the researcher are tests based on the results (digital) and that the tests are not subject to the estimates of the judges in obtaining the result, they are

far from bias and self-evaluation and enjoy good objectivity. For consistency and objectivity, Table (2)

**Table (2) shows the correlation coefficient for motor, functional and skill tests to find the stability of the tests**

| Objectivity | constancy | Unit of measurement | Mobility and skill tests | t |
|---|---|---|---|---|
| 0,84 | 0,85 | Tha | Multi-sided running (agility) | 1 |
| 0,87 | 0,86 | Tha | Test numbered circuits. | 2 |
| 0،93 | 0،90 | kg m/s | Anaerobic Power Test (Sargent) | 3 |
| 0،96 | 0،93 | litre | Critical capacity | 4 |
| 0,80 | 0,81 | degree | Test the measurement of scrolling accuracy from the top. | 6 |

**26 Main experience:**

After determining the tests and completing the exploratory experiment, and after preparing the appropriate tools and the place of implementation of the tests and standardizing the time and conditions of conducting the tests according to the order of the exploratory experiment, the researcher applied the tests to the main sample of (50) players on Sunday (9/2/2025), where the tests were conducted on the research sample at exactly ten o'clockIn the internal hall of the Sports Talent Center at the Ministry of Youth and Sports, the researcher took appropriate organizational measures to ensure that the tests are conducted correctly and achieve the objectives, namely:

- Configure the place to conduct tests.
- Explain and present the test vocabulary, the rules for recording it, and the method of performance before starting the application.
- Give the testers ( 15) minutes to perform the warm-up before starting the tests.

**27 Statistical Methods** The statistical bag (SPSS) was used to process the results obtained by the researcher based on scientific sources using the following statistical means:

- Standard deviation.
- Simple correlation coefficient (Pearson).
- Torsion coefficient.
- Arithmetic mean
- Units of measurement

**4- Presentation, analysis and discussion of results:**

**4.1 Presentation and analysis of arithmetic means and standard deviations of abilities, functionality and basic skills under research.**

**Table (3) shows the descriptive statistics of the search variables**

| Skewness | Std. Deviation | Median | Std. Error of Mean | Mean | Unit of measurement | Model |
|---|---|---|---|---|---|---|
| -1.056 | 18.066 | 78.000 | 2.555 | 72.300 | **degree** | Scroll |
| 0.448 | 0.950 | 11.000 | 0.134 | 11.080 | Tha | Multi-sided running (agility) |
| -0.562 | 0.690 | 3.500 | 0.098 | 3.438 | Tha | Test numbered circuits. |
| -0.013 | 0.788 | 3.200 | 0.111 | 3.464 | kg m/s | Anaerobic Ability Test |
| 1.200 | 9.737 | 150.000 | 1.377 | 151.040 | litre | Critical capacity |

**Table (4) shows the arithmetic means, standard deviations, correlation coefficient and their error ratio between the variables under consideration**

| Error rate | Correlation coefficient | Std. Deviation | Mean | Unit of measurement | Modality |
|---|---|---|---|---|---|
| | | 18.066 | 72.300 | **degree** | Passing skill |
| 0.199 | -0.185 | 0.950 | 11.080 | **Tha** | Multi-sided running (agility) |
| 0.431 | -0.114 | 0.690 | 3.438 | **Tha** | Test numbere circuits. |
| 0.138 | 0.212 | 0.788 | 3.464 | **kg.m/s** | Anaerobic Ability Test |
| 0.355 | -0.134 | 9.737 | 151.040 | **litre** | Critical capacity |

***Significant at error level (0.05) if error level is less than (0.05).**

From Table (4) on the correlation between motor and functional abilities and passing skill, the following can be seen:

- The correlation coefficient between the multi-sided running test (agility) and the passing skill was (-0.185) with an error level of (0.199) and a contribution rate of (0.096).
- The correlation coefficient between the numbered circuit test.And the skill of passing (-0.114 ) with an error level (0.431 ) and a contribution rate of (0.096).

- The correlation coefficient between the anaerobic ability test and the passing skill was (-0.212 ) with an error level of (0.138) and a contribution rate of (0.096).
- The correlation coefficient between the vital amplitude test and the passing skill was (-0.134 ) with an error level of ( 0.255 ) and a contribution rate of (0.096). Which indicates a lack of significance

**Table (5) shows the multiple correlation coefficient, the designation coefficient and the standard error of the estimate between *the variables* under consideration**

| Std. Error of the Estimate | Adjusted R Square | R Square | R | Model |
|---|---|---|---|---|
| 17.92693 | .015 | .096 | 309 Thousands of Countries. | 1 |

Table (6) shows the multiple correlation coefficient of (.309a) and the coefficient of determination of (17.92693) and a standard error of (0.015) between the passing skill and motor and functional abilities under study

**4-2 Presentation, analysis and discussion of the correlation and the percentage of contribution of motor and functional abilities in the basic skills under research.**

**4.2.1 Presentation and analysis of the correlation and the percentage of contribution of motor and functional abilities in the offensive skills under research.**

**Table (6) Statistical description of research variables**

| Skewness | Std. Deviation | Median | Std. Error of Mean | Mean | Unit of measurement | Mode |
|---|---|---|---|---|---|---|
| 0.422 | 4.243 | 14.000 | 0.600 | 15.200 | **degree** | **Swipe fro** |
| 0.448 | 0.950 | 11.000 | 0.134 | 11.080 | **Tha** | **Multi-sided (agility)** |
| -0.562 | 0.690 | 3.500 | 0.098 | 3.438 | **Tha** | **Test nu circuits.** |
| -0.013 | 0.788 | 3.200 | 0.111 | 3.464 | **kg.m/s** | **Anaerobic test.** |
| 1.200 | 9.737 | 150.000 | 1.377 | 151.040 | **litre** | **Critical capa** |

**Table (7) shows the arithmetic means, standard deviations, correlation coefficient and their error ratio between *the variables* under consideration**

| Error rate | Correlation coefficient | Std. Deviation | Mean | Unit of measurement | Model |
|---|---|---|---|---|---|
| | | 4.243 | 15.200 | Grade | Swipe from top |
| 0.057 | 0.271 | 0.950 | 11.080 | Tha | Multi-sided running (agility) |
| 0.932 | -0.012 | 0.690 | 3.438 | Tha | Test numbered circuits. |
| 0.447 | -0.110 | 0.788 | 3.464 | kg.m/s | Anaerobic Power Test (Sargent) |
| 0.044 | -.287-* | 9.737 | 151.040 | litre | Critical capacity |

***Significant at error level (0.05) if error level is less than (0.05).**

From Table (7) on the correlation between motor and functional abilities and passing skill, the following can be seen:

- The correlation coefficient between the multi-sided running test (agility) and the aiming skill was (-0.271) with an error level of (0.057) and a contribution rate of (.152). Which indicates the number of morale
- The correlation coefficient between the numbered circuit test.And the passing skill (0.012) with an error level (0.932 ) and a contribution ratio (.152). Which indicates a lack of morale
- The correlation coefficient between the anaerobic ability test and the passing skill was (-0.110) with an error level of (0.447) and a contribution rate of (.152). Which indicates the moral count
  - The correlation coefficient between the vital amplitude test and the overwhelming multiplication skill was (-.287-* ) with an error level of (0.044) and a contribution rate of (.152).

**Table (8) shows the multiple correlation coefficient, designation coefficient and standard error of estimation between *the variables* under consideration**

| Std. Error of the Estimate | Adjusted R Square | R Square | R | Model |
|---|---|---|---|---|
| 4.07658 | .077 | .152 | 390 a. | 1 |

Table (8) shows the multiple correlation coefficient of (.309a) and the determination coefficient of (.077) and a standard error of (4.07658) between the passing skill and motor and functional abilities under study.

**4.2.1.1 Discuss the contribution of motor and functional abilities to the two skills of practice:**

By presenting the percentage of the contribution of harmonic abilities in the performance of the shooting skill in Table (4), (5) we note that there is a discrepancy in this ratio with the passing ratio, as the results showed that this percentage is less than the percentage of the shooting skill. It is clear from the results of the research that all correlations are indicative and attribute the researcher to the weakness of the sample level in all the variables studied, which have nothing to do with the skill of correction, while the researcher stressed the need to emphasize the kinetic and functional tests that have Percentage of contribution to the skill of correction because choosing the appropriate test of the skill is closer to achieving the desired result of the measurement. The researcher also attributes this to the state of fatigue, physical and functional that contributed to the reduction of the level, as well as that the percentage of small contribution to the skill of correction and that this is reflected in the lack of participation in the contribution.

**4.2.2.1 Discussion of the contribution of functional motor abilities to the performance of the shooting skill:**

By displaying the percentage of the contribution of functional abilities to the performance of a skill Correction In tables (7) and (8) we notice that there is a clear discrepancy in these ratios from the skill Correction The researcher attributes the reason for this, to the fact that there is a close relationship between some of the functional motor abilities of the body and its adequacy and offensive skills, as through codified and organized sports training can develop the functional aspect of the player and this is confirmed by (Helmy Ibrahim, and Laila Al-Sayed) "As the vital organs help to perform their functions as a result of raising the efficiency of the work of the circulatory and respiratory systems, which works on the flow of blood in large quantities to the working muscles and improves. [(6)] It is evident by the ratios of the contribution of the player's functional abilities to the ability of the aiming skill tool well and in the best ratio.

## 5. Conclusions and recommendations

### 5.1 Conclusions:

- There is no contributing relationship between motor and functional abilities and offensive skills, as motor and functional abilities did not show a significant impact on the skill of aiming .
- There is a disparity in the contribution ratio between functional abilities and basic skills, with the highest ratio between functional ability (vital capacity) and shooting skill.

### 5.2 Recommendations:

- It is necessary to prepare the player in an integrated manner in all motor, skill and functional aspects.

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[2-] Helmy Ibrahim, Laila El-Sayed; **Physical education and recreation for the disabled**، 1st Edition: (Cairo, Dar Al-Fikr Al-Arabi, 1988) , p. 126.

- It is advisable to conduct similar studies of other variables in order to identify their relationship and the percentage of their contribution to the performance of other skills in basketball.
- Basketball players must be taken care of by supporting them with all moral aspects and providing them with all the necessary supplies.

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