

Contribution of Equilibrium Variables with the High Spike Accuracy of the Position Diagonal Center (4) in the National Volleyball Team Players

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Abstract

What is important about this study is whether there is a relationship between the ability to balance and beating overwhelming for the Iraqi national team volleyball? The study aims to identify the percentage of the equilibrium contribution and its variables with the accuracy of the skill of beating the high spike Diagonal center (4) in the players. In the national volleyball team season (2016-2017), the researchers used the descriptive approach in the style of associative relationships to suit the problem of research. The research community included all the players specialized in the high beating of the Iraqi national team applicants in the ball. The researchers concluded that the equilibrium variables contributed accurately and quickly to the high landslide of the region (4), and the researchers recommended the emphasis on the stability exercises, which showed a significant contribution and impact in the accuracy. And the speed of beating the Diagonal high ground, and the adoption of tests of accuracy and speed in the assessment of the level of the ballots in the national team because it gives greater realism to the level of training.

Keywords: *High spike, Accuracy and diagonal center.*

Introduction

In this regard, these errors are corrected by the trainers and specialists, as well as strengthening the parts or details of the strength in performance. The goal is not only to identify the weak areas but also to strengthen the areas of strength. To develop the components and variables of skill performance, beating overwhelming skill is very important in resolving the results of matches and if we previously care about the accuracy of modern levels and the strength of the walls of the player put the player under high pressure during his performance and became inevitable to the player. These qualities cannot be characterized by the player only when he has many physical qualities, including the ability to balance, which represents one of the physical qualities of compatibility in the important sports training, especially in the type of activities that require a high degree of stability and quality of concrete. In the method of motor performance and means by this destination the ability to find a suitable solution and quickly to the duties of mobility within the limits of a very small area of the possibility of

grounding or under balance relations, and the remainder is one of the conditions and adaptations needed by the player in the volleyball player. Scientists, including Schmedth, say that "precision and speed are apparent from the phenomena of general movement behavior, as well as from the behavior and requirements of some mathematical skills"[1]. The goal and nature of the task determines how it affects performance, "One of the most interesting situations in the mathematical field is when it requires both precision (timing or place), velocity (such as multiplication in) Baseball, softball and volleyball) within the same task or the same timing "(Schmedth)," [2] in most of the. There are cases indicating that movement with a focus on speed leads to positive results in many elements of motion, they give a better pattern of movement and are more consistent and increase the accuracy of timing. "(Lawther)," Research suggests that moving with a focus on speed. This leads to positive results in many elements of motion, including a better movement pattern, a more consistent

movement, more accurate timing, and even better positioning accuracy (depending on skill). Research has shown that some skills and speed increases do not reduce accuracy, (Magill) [3]. "The faster move sometimes makes the individual more precise," says Magill Your speed and acceleration make you more consistent in the timing of motion [4].Speed can be better if skill requires us to move quickly in the first place. " All of this indicates the importance of accuracy and speed in the overwhelming beating and that this ability is achieved only when there is a set of kinetic abilities and one of these abilities is the balance (Ali Abdel Hassan Hussein) that "the ability of the individual to control the work of the nervous system and musculoskeletal and control of physiological and anatomical capabilities Which have the ability to regulate balance and sense of place, "[5]the ability to maintain balance when the body in its kinetic state comes through the rapid change of body position, which often occur in the stimuli of strong acceleration, and that balance is one of the basic capabilities of each motor behavior, It agrees Ageson with Ray (Mustafa Issa) "The balance is the ability of an individual athlete to control the internal organs of the body when they equalized all the forces (internal and external) and the ability to control the functional organs to maintain the status of different or any situation taken by the body" [6].The balance as a physical fitness represents one of the important physical characteristics of compatibility in sports training, especially in the kind of activities that require a high degree of stability and a concrete quality in the method of motor performance and means from this destination the ability to find a suitable solution and quickly to the duties of mobility within a very small space Of the possibility of focusing or in the context of balanced equilibrium, if the balance as a physical fitness consonant in addition to maintaining the stability of the body's balance in general, the ability to face and compensate for the impact of motor disturbances in particular[7]. All the above mention the importance of studying the

relationship between motor equilibrium and the accuracy of beating the Diagonal high spike position (4) in volleyball, which is one of the most effective areas and use during matches, and the problem of research in theory, we find a lot of scientific research that establish relationships between Numerous physical, kinetic, physiological or biomechanical abilities, but the lack of research that takes the relationship between motor equilibrium and the accuracy and velocity of the high spike blow from the center (4). In practice, the equilibrium may be considered by some studies at the top capabilities, Joints and muscle strength and the ability of compromise and responses quick and agile actions in addition to motor responses, that important of this study is there a relationship between the ability of equilibrium and beating overwhelming for the Iraqi national team in volleyball? The study aimed to identify the values of the equilibrium and its variables and the accuracy of the skill of beatings [8]. And to identify the percentage of the contribution of the balance and its variables with the accuracy index of the skill of beating the Diagonal high spike position (4) in the players who are in the national team volleyball players season (2016-2017). The human field is determined by the players of the national team. The field was in the Faculty of Physical Education and Sports Sciences / University of Baghdad, the closed hall, while the temporal domain took the period (1/5/2017) until 10 / 9/2018).

Research Methodology

The researchers used the descriptive approach in a relational approach to suit the research problem.

Community and Sample Research

The research community included all the players who specialized in the high spike of the Iraqi national team. The applicants in volleyball (2017) m (6) players, where they formed the ratio (100%), and Table (1) shows the specifications of the sample.

Table 1: Specifications of the sample

S	Age(Year)	Age training (years)	Length (meters)	Weight (Kg.)
1	27	14	1.90	85
2	32	18	1.89	80
3	24	8	1.96	92
4	23	7	1.97	90
5	28	12	2.00	83
6	27	13	1.89	88

Means of Collecting Information, Instruments and Tools used in Research

Information Gathering Methods

(Arab and foreign references and sources, international Internet, personal interviews, observations, tests and measurement).

Tools used in the Research

(2) type of computer (Lenovo), CD, Kenova program, kinetica, speed (120) p / s, data dump form, leather measuring tape (20) (German-made), volleyball court, volleyball, legal specifications (10), challenge-disc (German-British).

Functional testing and stability testing:

High Landslide Test for the Region (4):

- Purpose of the test: Measure the accuracy and speed of the high spike ground of the region (4).
- Tools: legal volleyball court, legal plane balls number 10, adhesive tape and measuring tape to determine the triangular accuracy area at the end of the pitch is defined from the back by the transmission line and from the side by side line the measurements are 40 cm for each division,

(120) cm, and a speed camera (120) p / s to measure the time taken by the ball.

- Performance Specification: The player performs the skill of the overwhelming hit from the specified area and to the corresponding field and according to the direction required to pass the ball high speed network and to the specific accuracy areas, and do not record the attempt that does not drop the ball within the areas of accuracy or if the grid or a line error Legal within skill requirements.

Registration: For each player (6) Attempts:

(4) D, for the area of precision beyond, (3) d, for the accuracy area followed by, (2) d, for the nearest precision zone, (zero) d, for a given conflict.

The score is calculated by the players score in the accuracy zones. The time of the ball is determined from the minute it hits the moment to the accuracy zone by the camera. The time is extracted by the Kenova analysis program. The result is known as the precision indicator.

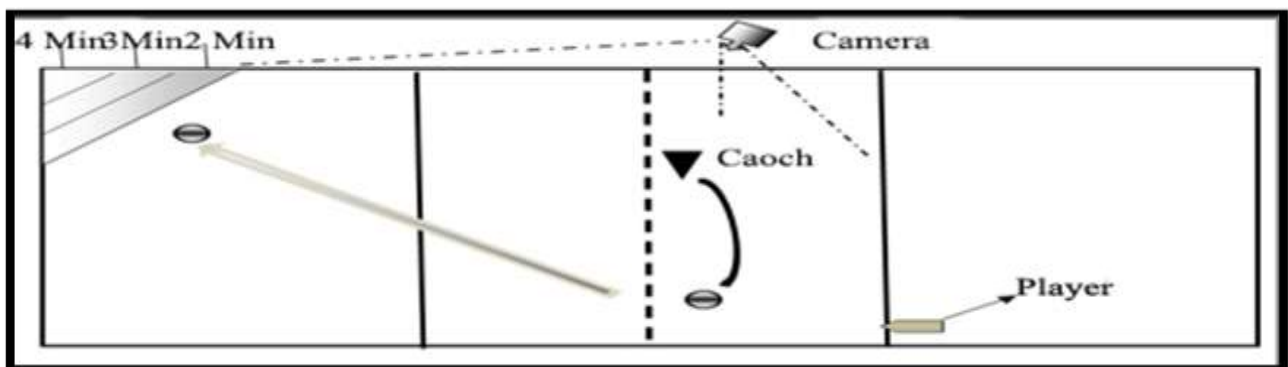


Figure 1: Testing of high-strength landslide test area (4)

Static and Moving Equilibrium Testing (Level1): [9]

- Objective of the test: measure the balance and its variables.
- Tools: Challenge-Disc, a computer that is familiar with the program.
- Performance mode: The player stands on the Challenge-Disc and faces the computer. Two circles appear at each level of the level. The player must enter the small circle inside the large circle by moving the disk and by looking at the screen the computer has different mode of performance after

each attempt to reach the stage (13) which is the last stage.

- Recording: The device gives a percentage for each stage of performance in addition to the overall stability.
- Number of attempts: One attempt is given to each player after trial attempts to adapt to the test requirements, and the total test time (321) Second (5.21) minutes.

After completing the test, the test screen shows the degree of total equilibrium. A variable of equilibrium is also extracted, as shown in Figure (1).



Figure 2: Balancing device and variables extracted

The Pilot Study

The researchers conducted the first exploratory experiment in (13/5/2017), at (6.00) pm and the closed hall of the people of volleyball.

Main Experience

The researchers conducted the skill test for the overwhelming beating and then the

stability test at (8/3/2018), at 11.00 am and ended at 1.00 pm, on the indoor hall of volleyball of the College of Physical Education and Sports Sciences / University of Baghdad, The Sony camera was used quickly (120) r / s, to extract the ball time to ensure that the ball from the moment of hitting to the moment touched the accuracy area).

Results and Discussion

Table 2: Values of the mean, standard deviations, simple correlation, error rate for accuracy and velocity of high landslide (4) and equilibrium variables

S	Variables	Units	Mean	Std. Deviation	Pearson Correlation	Sig.
1	Accuracy and velocity (4) diagonal	Deg./Sec.	4.499	.679		
2	Total	Degree	114.583	17.070	-0.041	0.424
3	resident	%	0.105	0.039	-0.055	0.399
4	stability	%	0.054	0.039	-0.006	0.489
5	Stability and non-concentration	%	0.102	0.042	0.124	0.282
6	Mobile balance	%	0.078	0.012	-0.236	0.134
7	Jump up to the right and left	%	0.049	0.034	0.078	0.359
8	Jump up and down	%	0.071	0.017	-0.341	0.051
9	Horizontal movement	%	0.082	0.022	0.075	0.363
10	The vertical movement	%	0.075	0.018	0.006	0.490
11	Rotate around the clock	%	0.144	0.035	-0.059	0.392
12	Rotating counterclockwise	%	0.138	0.022	-0.119	0.289
13	Continuous movement	%	0.058	0.035	-0.139	0.258
14	Jump up to a random location	%	0.050	0.033	0.244	0.125
15	Accelerated movement	%	0.028	0.010	0.286	0.088

From Table (2):

There is no significant correlation between the stability variables and the accuracy and velocity of the high spike blow to the diagonal area (4). However, there are two upper bottom movement variables which are very close to the morale followed by the acceleration variable

Table 3: Multivariate, Contribution, Standard Error, Contrast, and Sig (F) for the stability variables in the accuracy and speed of the high landslide region (4)

Variables	R	R Square	Adjusted R Square	Std. Error of the Estimate	(F) Change	Sig.
Balance	0.937	0.878	0.689	0.379	4.640	0.013

From Table (3):

The equilibrium variables have contributed accurately and quickly to the high landslide incidence of the region (4), and note that these variables have contributed, although there was no correlation between them in the previous table

Table 4: The values of the constant and the slope (effect) of the equilibrium variables in the accuracy and speed of the spike stroke (4) and its standard errors and their true significance

S	Variables	B	Std. Error	Beta	(t) value	(Sig)
1	Accuracy and velocity (4) diagonal	6.276	1.571		3.995	0.003
2	Total	-0.028	0.013	-0.692	-2.191	0.056
3	resident	-7.627	4.594	-0.440	-1.660	0.131
4	stability	9.328	3.929	0.539	2.374	0.042
5	Stability and non-concentration	19.387	4.448	1.209	4.359	0.002
6	Mobile balance	-48.229	20.511	-0.829	-2.351	.043
7	Jump up to the right and left	9.393	4.885	0.474	1.923	.087
8	Jump up and down	-44.460	10.045	-1.131	-4.426	0.002
9	Horizontal movement	29.707	12.446	0.972	2.387	0.041
10	The vertical movement	16.956	10.238	0.448	1.656	0.132
11	Rotate around the clock	10.366	6.068	0.535	1.708	0.122
12	Rotating counterclockwise	13.621	9.245	0.444	1.473	0.175
13	Continuous movement	-9.721	3.259	-0.506	-2.983	0.015
14	Jump up to a random location	10.294	5.488	0.502	1.876	0.093
15	Accelerated movement	-30.070	20.365	-0.433	-1.477	0.174

From Table (4):

There are several variables that have the effect on the accuracy and speed of the high landslide of the region (4) diagonal and are in the order of the most significant to the smallest (jump to the top and bottom, non-positioning stability, continuous movement, horizontal movement, stability, mobile equilibrium). The results of the sequence of stability variables give the trainers a fact or an indication of the proportion of the exercises and movements and trends during the training units. The measurement was a description of the property of the research sample of the specifications of the balance, and the specialists can through this to identify the strengths and weaknesses of the players and increase or develop training elements including In fact, all the equilibrium variables are important for the player. This is the important motor ability of any player. The researchers may consider them the top of kinetic and physical abilities to which most global exercises are directed.

When the balance has the strength of the joints and the strength of the body and the strength of the trunk, [10] and this is mentioned in the list of specifications of the device designed to perform balance. The balance is an integral part of all sports movements and is the top of the pyramid in the physical attributes of the athlete. The balance is "the ability of the individual to control the functioning of the nervous and musculoskeletal system and to control the physiological and anatomical abilities that have the ability to regulate balance and sense of place",[11] most of the teams' training The trainer's list contains many elements of strength, speed, agility, etc.

However, when we observe these exercises, we find that the training session of the balance that is associated with the exercises is few and this is contrary to the direction of developed countries in the training of their players, we are often noticed through the scientific sites for their training It is mostly

associated with modern exercises poise associated with the speed and strength [12].The researchers would like to explain that the equilibrium variables showed their contribution accurately and the speed of the spike beating, but we seek to have more exciting variables with the skill performance [13].Where elite athletes were found to be more balanced than their less efficient peers, and the ability to balance was highly relevant to the accuracy of most sports. Future studies showed that the addition of the balance training element to the training modules led to improvements in vertical jumping, agility.

And agility, and that increased equilibrium movements lead to an increase in the rate of force development [14].The game of volleyball is based on the level of high reaction and responses in various directions is a game characterized by spaces and speed of performance and requires the player's high mobility and preparation for the movement

that follows it, which requires the player to have a high capacity of static balance in both static and moving [15]. The locomotive balance is important and necessary especially for sports that require movement in a tight space with a change in the course of movement in which the player may lose balance and it is necessary to restore this balance quickly to start a new movement. The voluminous balance is very important in the game of volleyball, especially in the skill of beating overwhelming, because the game has a change in directions of play from the right and left and front and back and jump in the air and the performance of his movements in flight, where the player needs a high balance ability that can overcome all the stimuli that Occur during that [16].

Conclusions

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