

The impact of the effectiveness of blocking skill on senior men Volleyball competitions results

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Abstract:

Our current study aims to reveal the extent of the contribution of blocking skill and its effectiveness in influencing the results of the national championship competitions for the senior men, as the latter is considered the first high line of defense after the low defense and this is to protect the area from successive attacks, absorb the power of crushing blows, as well as the impact on the psychological aspect (Frustration) for the opponents' attackers in particular and the team in general in case that they do not surpass the blocking wall, and it has become relied upon it as a qualitative strategy to win in modern volleyball

Key Keywords: effectiveness – blocking skill - competition

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I- Introduction :

Sports activities are affected over time by the development and change in one way or another in the methods and curricula of training in motor skills and defensive and offensive tactical plans to reach higher levels, and volleyball is no less important than other sports in its legal, tactical and offensive development by creating formations and Tactical sentences to stop quick and lightning attacks and this is by forming a defense with a number of players according to the situation, in which the attack is closely related to the defense, in which the movement is active and intense, where the coaches depend on the development of physical qualities such as the explosive power of the lower extremities, agility and flexibility, without neglecting the technical and skill side, such as the serve, the crushing strokes, and the blocking skill. (boulos, 2006)

The formation of the blocking with two players is common and essential main, then followed by one player. As for three players, it is little used and used by teams of very high level; it increases the responsibility of the player to defend the stadium and is used in the case of a strong competing attacker (taha, 2002). The goal of the blocking is to gain the largest number of points, distract the opposing team, lose the ability to focus, and confuse it by blocking its attacks and preventing it from forming coordinated collective movements, which are represented in offensive or defensive plans, which he may use at the same time to build an offensive process according to the situation.

By watching some matches in the Algerian championship, we noticed that there is a noticeable lack of attention to the blocking skill on the part of some teams and players in the national competitions, or as a strategy that the team builds in response to the strength of the successive crushing blows, as we find that most of the team players focus all their focus on recording points are on the tactical side in diversifying aces and different types of serving skill.

From this point of view, our study focused on revealing the effectiveness of the blocking skill in the competitions of the Algerian teams in the championship of the first national division of the greatest men, in terms of its use and its continuous and intensive employment in achieving the results of the competition, and accordingly we raised the following general question:

- Does the blocking in volleyball have an impact on the results of the competition for the Algerian teams, the senior men?

Through the main question, we asked the following sub-questions:

-Is the blocking tactic with two players the most influential on the results of volleyball competitions in the national division, senior men compared to the other two tactics?

-Is scoring points by blocking the most influential on the results of volleyball competitions compared to the rest of the scoring methods in the first national division senior ?

1- Hypotheses.

1-1- The general hypothesis:

- The blocking skill in volleyball has an impact on the results of the competition in the first national division.

1-2- Partial Hypotheses:

- The tactic of blocking with two players is the most influential on the results of volleyball competitions compared to the other two tactics in the first national division senior.
- Scoring points with the blocking skill is the most influential on the results of volleyball competitions compared to the rest of the scoring methods in the first national division senior.

II- Theoretical background.

The rise in the levels of sports teams in the game of volleyball, especially in modern defense techniques, is caused by the great improvement in the abilities of the blockers in defending the field, and the various offensive strikes over the net, have become the effective way to thwart the opposing team's resolve by preventing its attackers from hitting the crushing balls from over the net (offensive blocking) or absorbing the force of the blow (defensive blocking). Therefore, the formation of the appropriate and proper blocking skill will allow the rest of the team members to take their appropriate defensive positions that prevent finding gaps that allow for easy access to critics by the hitting player, and at the same time using an offensive skill (offensive blocking) against the attacking team.

1-3-Blocking skill.

The blocking skill is an offensive and defensive process skill through which points are gained and affects the psyche of the opponent, which is:

It is a formation taken by one or more players on the net and to prevent the opponent from hitting the ball or bringing it into the court by placing the arms of each player above the level of the net.

Blocking skill is played by any of the three front-line players. This skill is performed in three formations (single block for any player, double blocking, and triple blocking). When the ball touches the block and enters the court, it does not count as a hit and the team can complete the game with three touches and therefore, the player must be in the position of a block, that is, he must not be far from the net and not touch the ball while he is on the ground.

The formation of the blocking of the players is the common and the main in the game of volleyball and may be formed by less than one player. As for the formation of the three players, is not very common, or we find it in teams of a very high level . It increases the responsibility of the defending players on the field and is used in the presence of a strong opponent attacker.

The blocking is one of the basic skills that faces to the most dangerous and effective of volleyball skills, the effectiveness of the smash skill with the offensive characteristics on the net, as well as its psychological impact on the attacker, as the attacker's feeling of the participation of a player from the opposite team with him lacks the freedom to act in sending the ball to the right place and distracts his attention. (Khaled, 2008)

2- Defining the concepts and terms mentioned in the study.

2-1- Effectiveness.

Linguistic definition: efficacy. (Ibn manzur, 2007)

Idiomatic definition: It is the ability to obtain the desired, demanded and expected result. (Khouli&, 2004)

Procedural definition: It is the efficacy and success rate in all attempts to block.

2-2-Blocking skill.

Linguistic definition: objection. (Ibn manzur, 2007)

Idiomatic definition: it is the interception of an attack in front of the net.

Procedural definition: It is a skill that players who are present individually or together in the offensive area and this is by elevating and extending the arms upward to return the ball to the opponent's field or absorb the attacking force.

2-3- Competition.

Linguistic definition: a race and a duel without harming the opponent. (Ibn manzur, 2007)

Idiomatic definition: competition is a situation in which two or more people compete and work to obtain the prize or the largest share of it and achieve a star level. (Hassan, 2009)

Procedural definition: It is a sports match between two teams whose goal is to win.

3- Previous studies.

3-1- The first study: Al-Atrash Zubair (2008.)

Study title: The effectiveness of the blocking skill in volleyball and its impact on the team's performance level within the national competitions.

General Hypothesis: The skill of blocking has a clear impact on the level of team performance.

Partial hypotheses: Forming the block with two players has a positive effect on the level of performance. A good upgrading of the blocking skill has a prominent role in the level of performance.

Objectives of the study:

- Knowing the effect of blocking players on the level of performance.
- The role of a good upgrading of the blocking skill at the level of performance.

Approach and research tools: The researcher followed the descriptive approach using the questionnaire and observation tools.

Results:

- The skill of blocking is very important in volleyball.

- The well-known and preferred forms of blocking for the first national volleyball division teams are offensive blocking, defensive blocking and zone blocking, and the latter is of great importance in the eyes of most coaches.

- The great importance that the blocking tactic plays with two players.

A good upgrading of the blocking skill has a major role in achieving positive results

3-2- The second study: Ali Taha Ghafoor (2014.)

Study title: Evaluation of the effectiveness of the skill performance ratio of sending, receiving and blocking in volleyball, according to an analytical program using a computer, Karmian University, Baghdad.

Study hypotheses:

- Variation of performance effectiveness ratios for the skill of receiving the transmission of its two types (receiving the transmission from the top and receiving the transmission from the bottom) among the Iraqi volleyball team players.

- Variation of performance effectiveness ratios for the blocking skill among the Iraqi volleyball team players.

Objectives of the study:

- Analyzing the performance effectiveness of the transmitter reception skill with its two types (transmitter reception from the top, transmission reception from below).

- Analysis of the performance effectiveness of the blocking skill according to the blocking positions inside the court (2:3:4).

Approach and research tools: The researcher followed the descriptive survey method, using the observation tool.

Results:

- Variation of performance effectiveness ratios for the skill of receiving the serve in its two types (receiving the serve from the top and receiving the serve from the bottom) among the Iraqi national team players.

- Variation of performance effectiveness ratios for the blocking skill of the Iraqi national team players.

III- Methods and Materials:

1- Research community and sample.

1-1- Research community.

In this research, we relied on 12 senior teams active in the first national division, each team consisting of 12 to 14 players.

1-2- Research sample:

In our study, the research sample was intentionally selected, according to the material and moral capabilities of the researchers, represented by four teams: "Widad Tlemcen - Petroleum Complex - Bordj Bou Arreridj Club - Nejm Setif." Each team was represented by their slogans in Latin letters, respectively (WAT-GSP). -NRBBA-ESS) where the research competitions and interpretation of results were observed over two seasons from December 2018 to March 2019 and from December 2019 to the end of February 2020.

3- Research tools and techniques.

In our field research, we recorded competitions from the National Division senior using a high-resolution audiovisual recording machine, centered on the blocking and scoring methods. After recording, we re-watched the matches and analyzed them manually using a computer program (Excel), in which it relied on the analysis of four axes: the method of scoring the point, the form and tactics of blocking, and the players who formed the block and this is to calculate the effectiveness.

a. The validity and reliability of the tool.

We interviewed one of the specialists in the field of audio-visual analysis and some coaches specialized in volleyball, in a friendly match that brought together Wydad Tlemcen team and Chlef Rubber team, after we showed them the method of analyzing the results and extracting the effectiveness, where they gave us some guidance and advice regarding the Excel program to note and match analysis.

b. The statistical method.

To interpret the results, we used percentages, arithmetic mean, Pearson correlation coefficient, multiple linear regressions,

4- Presentation and discussion of the results according to the hypotheses of the study.

4-1- Presentation, analysis and discussion of the results of the first partial hypothesis:

The two-player blocking tactic is the most influential on the results of volleyball competitions, compared to the other two tactics in the first national division senior.

Table (1): shows the effectiveness of the blocking tactics of four teams during their competition in 12 matches of the first national division, and their results.

TEAMS	MATCHS	Single	Double	Triple	Match	Scored
WAT	WAT/ESS	23,6364	29,0909	5,4545	3/0	3
	WAT/NCB	18,6813	26,3736	2,1978	3/2	2
	WAT/GSP	18,3908	22,9858	1,1494	2/3	1
	WAT/NRBBA	17,6471	23,5294	1,4706	1/3	0
	WAT/GSP	22,4490	20,4082	4,0816	0/3	0
	WAT/GSP	25,5319	19,1489	4,2553	0/3	0
GSP	GSP/WAT	23,0769	28,8462	1,9231	3/0	3
	GSP/WAT	26,9231	28,8462	3,4862	3/0	3
	GSP/WAT	20,2128	29,7872	3,1915	3/2	2
	GSP/WAT	21,3115	24,5902	0,0000	1/3	0
NRBB	NRBB/WAT	24,3243	27,0270	2,7027	3/1	3
ESS	ESS/WAT	29,5455	18,1818	0,0000	0/3	0

Table (2): The results of the analysis of the data of the first axis.

Dependen	Independent	Corr	Coef	Valu	F	β	T	T
Result match	Single block	0,91	0,84	14,5	0,001	0,08	0,69	0,51
	Double block					0,30	5,89	0,00
	Triple block					0,10	1,95	0,08

4-2- Interpretation, analysis and discussion of the results of the first partial hypothesis:

Through Table No. (2), we note that when winning with a score of 0/3, the effectiveness of individual blocking ranged between (23.07%) and (26.92%), and the effectiveness of double blocking ranged between (28.84%) and (29.09%). The effectiveness of triple blocking was between (1.92%) and (5.45%). We also note that when the NRBB team won with a score of 1/3, the effectiveness of individual blocking was estimated at (24.32%), the effectiveness of double blocking was (27.02%) and the effectiveness of triple blocking was estimated at (2,7027%), and we also note that when the two teams won by a score of 3/2 the effectiveness of single blocking was estimated at (20.21%) and (18.68%), the effectiveness of double blocking was estimated at (29.78% and 26.37%), and the effectiveness of triple blocking was estimated at (3.19% and 2.19%)). Then we note that when the WAT team lost with a score of 2/3, the effectiveness of individual blocking was estimated at (18.39%), the effectiveness of double blocking was estimated at (22.98%), and the effectiveness of triple blocking was estimated at (1,14%), and when the two teams lost by 1/3, it was estimated the effectiveness of single blocking with 17.64% and 21.31%, the effectiveness of double blocking with (23.52% and 24.59%) and the effectiveness of triple blocking with (00% and 1.47%).

Finally, we note that when losing with a score of 3/0, the effectiveness of single blocking ranged between (22.44 % and 29.54%), the effectiveness of pair blocking between (18.18% and 20.4%) and the effectiveness of triple blocking between (00% and 4%, 25).

-As for Table (2), we notice a very strong direct correlation between the independent variables and the competition result, and the value of the coefficient of determination (0.845), meaning that the independent variables explain 84% of the variance in the competition result. We note that the significance of the analysis of variance test was estimated at (0,001), which is less than (0,01), which indicates the significance of the test, that is, the independent variables affect the dependent variable and its value can be predicted through the independent variables.

We also note that the significance of the bilateral blocking was estimated at (0.000), which is less than (0.01), i.e. the effectiveness of the two-player blocking tactic is the most influential on the results of volleyball competitions, compared with the other two tactics in the first national division senior, as we noted that this tactic is the most widely used in all competitions for the sample of the observed study, and we also noticed through the analysis of the results that it has a significant impact on the outcome of the competition, which confirmed our results compared to the results of Hossam Khalifa and Ibrahim (Gharib, 1996) where "blocking with players is considered one of the best methods of blocking, and strong teams use it in this time ". Also, what Al-Atrash Zubair found, "The formation of blocking with players has a positive impact on the level of performance." And through the results obtained, we conclude that the blocking tactic with two players is the most influential on the results of volleyball competitions, compared with the other two tactics in the first national division senior, as confirmed by the results of Al-Dailami (2009) study that training in a competition style has a role in achieving

4-3- Interpretation, analysis and discussion of the results of the second partial hypothesis:

Scoring with the block skill is the most influential on the results of volleyball competitions compared to the rest of the scoring methods in the first national division senior.

Table (3): shows the effectiveness of the methods of scoring points results for the four axes in 12 matches

Teams	Matches	Effectiveness			Team's errors%	Match result	Scored points
		of	of	of			
WAT	WAT/ESS	40,50	16,45	11,39	31,64	3/0	3
	WAT/NCB	48,24	15,78	13,15	22,80	3/2	2
	WAT/GSP	44,86	16,82	6,54	31,77	2/3	1
	WAT/NRBBA	47,05	8,23	12,94	31,76	1/3	0
	WAT/GSP	49,15	6,78	10,16	33,89	0/3	0
	WAT/GSP	42,66	17,33	6,66	33,33	0/3	0
GSP	GSP/WAT	34,37	10,93	14,06	40,62	3/0	3
	GSP/WAT	40,00	18,66	10,66	30,66	3/0	3
	GSP/WAT	45,13	10,61	10,61	33,62	3/2	2
	GSP/WAT	43,82	6,74	11,23	38,20	1/3	0
NRBB	NRBB/WAT	46,93	10,20	15,30	27,55	3/1	3
ESS	ESS/WAT	35,71	3,57	7,14	7,14	0/3	0

Table (4): The results of the analysis of the data of the second partial hypothesis.

Dependen	Independen	Corr	Coef	Valu	F	β	T	T
Result match	Block	0,88	0,77	6,06	0,02	0,170	3,275	0,01
	Serve					0,353	3,828	0,00
	attack					0,104	-1,963	0,09
	Errors adv					-0,022	-0,703	0,50

4-4- Analysis and discussion of the results of the second partial hypothesis:

Through Table No. (3), we notice that when winning with a score of 0/3, the effectiveness of the attack ranged between (34.37% and 46.93%), the effectiveness of blocking between (10.20 and 18.667%), and the effectiveness of blocking the service between (10%, 67 and 15.50%) and the percentage of discount errors between (27.35% and 40.52%). We also note that when the NRBBA team won with a score of 1/3, the attack effectiveness was estimated at (46.93%), the blocking effectiveness was (10.20%), the serving effectiveness was (15.306%) and the opponent's error rate was (27.55%). We also note that when the two teams won with a score of 2/3, the effectiveness of the attack was estimated at (20.21% and 18.68%), the effectiveness of blocking (29.78% and 26.37%) and the effectiveness of the serving (3,19% and 2,19%) and the percentage of discount errors (22.80% and 33.62%). Then we note that when the WAT team lost with a score of 3/2, the effectiveness of the attack was estimated at (44.86%), the effectiveness of blocking at (16.82%), the effectiveness of the serving as (6.54%), and the percentage of opponent errors at (31.77%). When the two teams lost 1/3, the effectiveness of the attack was estimated at (17.64%) and (21.31%), the effectiveness of blocking was (23,52%) and (24.59%) and the effectiveness of the serving was estimated at (6.66%), and (1.47%) and the percentage of discount errors (17.67%) and (21.315 percent). Finally, we note that when losing with a score of 3/0, the effectiveness of the attack ranged between (35.68% and 45.36%), the effectiveness of blocking between (18.81%) and (20.48%) and the effectiveness of the serve skill between (6.66% and 6.66%). 12.94) and the percentage of discount errors between (7.14%) and (33.89%).

Through Table No. (4), we notice a very strong direct correlation between the independent variables and the competition result, and the value of the coefficient of determination (0.776), that is, the independent variables explain (77%) of the variance in the competition result. We note that the significance of the analysis of variance test was estimated at (0.02) which is less than (0.05), which indicates the significance of the test, that is, the independent variables affect the dependent variable and its value can be predicted through the independent variables. We also note that the transmission significance was estimated at (0.006), which is less than (0.01), that is, the effectiveness of scoring points by transmission is the most influential on the results of volleyball competitions, compared with other recording methods in the first national division senior. The largest in all the observed competitions and this was mentioned by (Khaled, 2008), but the latter did not have a significant impact on the results of the competitions, through statistical analysis. So that it has been proven that transmission is the strongest influence on the results of competitions, compared to other recording methods. Then followed by repelling with a strong but not the strongest impact.

So through the results obtained, we conclude that the two-player blocking tactic is the most influential on the results of volleyball competitions, compared with the other two tactics in the first national division senior.

IV- Conclusion.

The results of our study confirmed that the effectiveness of the blocking skill on the results of the volleyball competitions in the first national division is very small for all the competition teams of the top men's class senior, and through the results we recorded that the points gained by serve skill are the most influential on the results of the competition compared with other registration methods, and in the last it can be saying that coaches rely on the blocking skill as a strategic skill that they use to read all the playing positions of the opponent team, and this pushes the players to focus more on the blocking skill in their training, because the high-level competitions require greater efforts to prepare a strong block that is effective and strong on the results of the competitions.

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