

A study to analyze the performance level of the high spike and serve skills of professional players in the Iraqi Volleyball Premier League for the 2022-2023 season

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Abstract:

The importance of research in analyzing the level of offensive skill performance for the high smash and serve skills according to a computer-based analysis program on professional players in the Iraqi Premier League in volleyball. Through the researcher's follow-up of the matches of the Iraqi Premier League in volleyball, they found that the clubs that contracted with professional players there is a disparity in the level The skill performance of these professionals, especially the level of performance of some offensive skills. The objectives of the research were to analyze the level of skill performance of professional players for the serving skill and to analyze the level of skill performance of professional players for the spike hit skill according to the location of the spike hit on the court (1, 2, 4). The researcher used the (data) program. volley) to analyze the effectiveness of the offensive skill performance of professional players, which extracts an analysis of the level of skill performance for the serving and spiking skills. The conclusions of the research were There is a weakness in the level of performance of the serve skill of both types of ace and flutter among professional club players, and the level of performance of the ace skill from position (2) is better than the level of performance of the skill of ace from position (4). There is a discrepancy in the performance level of the skill of ace from position (1).) between one match and another based on the level of performance of the competing team. The recommendations were training on accuracy, concentration and speed in hitting the ball on the ace and flutter to increase effectiveness and introduce fun and suspense into training types of serves as well as increasing motivation.

Keywords: performance level, smash hit, serve, professional players

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Introduction

The great development that has occurred in sports, including volleyball, has made developed countries resort to developing modern skill methods in confronting the opposing team, out of their conviction that these skill methods represent the most important aspect of the game, in addition to the high physical fitness required by the game, which must be given great attention. Large and high, this makes it easier for the player or team to know the offensive or defensive tactical aspects of the opposing team. This skill development came through the use of modern scientific methods in measuring and analyzing the technique that players perform during matches, as analysis during matches gives more credibility than it does in training, so Modern equipment was used for photography, as well as the computer, which has become of great importance in the process of analyzing the skills of players. (Nashwan, 2024)

The skill level of professional players in the game of volleyball gives an indication of the extent of the team's individual and collective skill progress. The method of analyzing matches using a computer is one of the latest methods that coach's resort to know the level of performance of their players and teams, address weaknesses and enhance strengths, which makes it easier for the coach to develop a plan and method of playing. (Yasir et al., 2020) Suitable for every match, and as a result of the lag in the level of volleyball in Iraq, we need to conduct an analysis of the technical skills of professional players in order to know the weak points of the players and the team to raise the technical level and be on the right path in preparation, (Zahraa & Ali, 2022) since serving and spiking are among the important and basic skills in winning the match from Here came the importance of research in analyzing the effectiveness of offensive skill performance according to a computer-based analysis program on professional players in the Iraqi Premier Volleyball League.(Abed et al., 2022)

Research problem:

The game of volleyball consists of many technical skills that are performed differently, but they must be interconnected and integrated in order to reach the high level, and reaching the higher and advanced levels requires a lot of research and analysis in order to determine the technical level of the players and evaluate the effectiveness of the performance of the players and the team, and this requires Creating a scientific and advanced program that analyzes the team during matches and records all the team's strengths and weaknesses in order to raise the level of the team. Through the researcher's follow-up of the Iraqi Premier League volleyball matches, she found that the clubs that brought in professional players there is a disparity in the level of these players, especially the level of performance of some offensive skills, and this The disparity had a negative impact on the team's results, which led to a change in the sequence or final ranking of the Iraqi teams. It is very important to know the level of these players and their role in their teams, and whether their skill level is proportional to the amounts spent on them, and from here came the problem of the research in identifying the level of effectiveness. The performance of these foreign players

research aims:

- 1- Analysis of the level of skill performance of professional players for the skill of serving with both types of flutter and ace
- 2- Analysis of the level of skill performance of professional players for the smashing skill according to the hitting position on the field (1,2,4)

Research areas:

- Human field: Professional players in the Iraqi Premier League for the 2022-2023 sports season
- Time range: The period of time limited to (10/1/2022 until 4/10/2023).
- Spatial domain: Halls for Iraqi Premier League volleyball matches (Al-Shaab Hall, Al-Zubair Hall in Basra, Peshmerga Hall in Sulaymaniyah, Erbil Hall in Erbil)

Among the studies that dealt with the subject of analysis is a study by (Tariq Ali Yousef, Jaafar Abdul Muttalib) (The effect of exercises similar to match situations according to the statistics of the analytical program Click Scout)) on some types of skill performance of some players of the Iraqi Elite Volleyball League 2018-2019)

The method of analyzing matches is an integrated system for evaluating and measuring the entire team or each individual player during matches or training, as coaches resort to it to determine the performance of players and the team and evaluate them continuously in matches. This procedure allows them to identify all the events of the matches or the entire tournament and implement various skills according to statistics. The extracted program as well as extracting the results for the team and calculating the error percentage for each player as well as knowing the rotation errors and calculating points and conducting the analysis by replaying the movement slowly and conducting the analysis for each type of skill, as the importance of research lies in the effect of exercises similar to match situations according to the statistics of the analytical program. (click scout) In some types of skill performance of some players in the Iraqi Elite Volleyball League 2018-2019, and through the researchers' observation, it was found that Iraqi clubs lack objective analysis and direct evaluation using computer analysis programs that evaluate each player individually or the entire team through matches. Which leads to identifying the defect in the level of the team, and through the experience of the researchers, as they are former players and the fact that one of them works in the field of training for long periods, and by taking the opinions of experts and specialists in the game, he noticed that there is a lack of use of statistical analysis programs using computers, whether in particular by the Central Iraqi Federation or In general by the clubs, the researchers also noticed the lack of use of exercises similar to match situations, so they decided to delve into preparing exercises similar to match situations according to the statistics of the analytical program (click scout) in some types of skill performance of some players of the Iraqi Elite Volleyball League 2018-2019. The aim of the research is to prepare exercises similar to match situations according to the statistics of the analytical program (click & scout) in some types of skill performance of some players of the Iraqi Elite League in volleyball. Identifying the effect of exercises similar to match situations according to the statistics of the analytical program (click & scout)) on some types of skill performance of some Iraqi Elite League volleyball players. To achieve the research objectives, the researchers used the experimental approach with a single experimental group design, and the research population was identified, represented by the players of the Premier League volleyball clubs for the 2018/2019 sports season, who numbered (8 clubs), with (112 players) representing the southern and northern groups for the preliminary qualifiers for the Premier League. As for the sample The research consisted of the Al-Sinaa Club players, who numbered (14 players), with the percentage of the sample from the population reaching (11.4%). After that, the researchers used the analytical program (click & scout) to extract the pre-analysis, then design exercises, and then conduct the post-analysis. After that, the researchers processed The results are in the winning section to obtain the results of the search. The researchers reached some conclusions, the most important of which is: The experimental group excelled in the post-analysis of some types of skill performance of some Elite League players. The analytical program Click Scout was effective in analyzing some types of skill performance of some Elite League players.

Research methodology and field procedures: Programmer and Procedure

Research Methodology:

The researcher used the descriptive approach for its suitability in achieving the research objectives.

Research community and sample:

The researcher identified the research community represented by the professional players present in the Iraqi volleyball league for the Riyadh season 2022-2023, and their number is 16 players distributed among eight clubs. As for the research sample, they are the professional players of the clubs that qualified for the golden square, their number is (12) players, and they represent the clubs (Police, South Gas, and Peshmerga). , Erbil) and they represent the research sample by 66%

Tools and devices used in research:

1. Arab and foreign sources.
2. The analytical program (data volley) from the company (www.datavolley.com)
3. Dell electronic calculator
4. Sony 8M camera
5. Imation type CD

- Search procedures.

- Exploratory experiment.

The researcher conducted a reconnaissance experiment on 11/1/2022 among the professional's present with the Bahri Club, who were outside the main research sample, and it aimed to do the following:

Diagnosing the obstacles and negatives that the researcher encounters when conducting and implementing the main experiment.

- 1) The researcher's ability to use the analysis method within the electronic calculator.
- 2) The validity of the form for extracting results.
- 3) The accuracy of the researcher and his ability to quickly record and enter information.
- 4) Ensure the appropriate filming location for the purpose of recording player numbers and skill by the players

Statistical methods:

The researcher used the statistical package (SPSS) within the Windows 2000 system to process the data obtained.

- 1- percentage
- 2- Simple correlation coefficient (Pearson).
- 3- Skill performance level score: extracted directly from the analytical program using the computer.

The evaluation level score for each skill separately = the sum of the occurrences of the skill below the first degree level for the skill evaluation $\times 1$ + the total number of repetitions for the skill below the second level of the assessment $\times 2$ + + to the last total number of repetitions for the skill degree level.

Evaluation level score
 Effectiveness ratio= □100
Total number of skills □ Highest rating score

Presentation, analysis and discussion of results:

Display, analyze and discuss the results of the level of effectiveness of the jumping ace according to the skill levels of the professional players of the four clubs

Table (1) shows the level of effectiveness of the jump ace according to the skill levels of the professional players of the four clubs

		Jump ace skill levels						
		Skill effectiveness rate						
Jumping ace	Levels	Zero	1	2	3	4	Evaluation level	
		Southern gas	5	10	12	2	1	36.6%
		Erbil	4	8	7	1	2	45.8%
		Peshmerga	7	13	6	4	2	35.17%
		the police	6	4	1	2	1	28.6%

The researcher found, through Table (1), that small or low effectiveness rates appeared in the matches (Southern Gas, Erbil, Police, Peshmerga) for jump aces and the professional players who performed this type of serve, as this serve did not have a good effect or morale on the players. Receivers from the other four teams. The researcher attributes the reason for this weakness to the lack of accuracy and correct focus in performing this serve, as the exercises must focus on using the serve in a focused manner. With a high hitting speed and hitting the ball straight and strong and directed at a specific player or between two players or at empty points or at a player with weak reception, (Nashwan & Alzoubi, 2022) the researcher advises when training this type of serve, which is considered a closed skill that depends on the player's technician only for training. Constantly and trying to isolate the player from external influences when performing the serve, as well as following the gradual method and repeating the exercise according to the different playing situations, as the libero player must stay away if he is good when performing the jump serve, as Nahida Abdel Zaid states, "The goal of the serve is to try score a point The researcher agrees with this opinion that the serving skill is an effective offensive skill from the linear, technical and psychological aspects, especially after the advanced teams used the jump serve in most of the match times. (Mondher et al., 2023)

Presenting, analyzing and discussing the results of the level of effectiveness of the jump serve according to the skill levels of the professional players of the four clubs

Table (2) shows the effectiveness percentage of the jump flutter transmission

		Skill levels of serving, fluter, and jumping					
		Zero	1	2	3	4	Effectiveness ratio
Flutter jump transmitter	Southern gas	11	29	20	12	8	44.6%
	Erbil	5	8	7	1	6	63.7%
	Peshmerga	9	21	5	2	4	32.3%
	the police	7	11	6	-	2	27.8%

The researcher found, through Table (2), that small or low effectiveness rates appeared in relation to the skill performance of the jump serve in the matches of the four clubs (Southern Gas, Erbil, Police, and Peshmerga), where the number of players using this type of serve reached (8) players and The researcher attributes the reason for this weakness to the prevailing thinking among professional players when the points between the two teams are close or reaching the last points of the half, that this skill is merely crossing the ball over the net, and where the player must take into account when performing the serve, the fluter from the jump, the distance. And the height and the specific place, as well as trying to play the ball against a player who is weak in receiving skill or a player in position (4). (Mondher & Khalaf, 2023) As for the match between Gas Al-Janoub and Erbil, the effectiveness was good, reaching (63.7), which is considered a good percentage if compared to the effectiveness of the serving skill. With other matches, the researcher attributes the reason for the appearance of this good percentage to the weakness of the receiving skill of the South Gas team, (Munaf et al., 2021) in addition to the high level of effectiveness of the serving skill of the Erbil Club players. The researchers advise when training the serving skill to include the fun and suspense factor in performing the serving exercises, as well as increasing motivation. In training, and also that the average age of the national team players is appropriate for the speed of learning and training in these skills, and also giving seriousness to the serve exercises, where the focus is on performing the exercises seriously. “The interest in increasing the diversity of the exercises according to different types of feedback, commitment, and diversification in performance helps. To develop and master the skill of striking. Also, the technical performance specifications for the back and front smash skill are similar in terms of increased flexion in the joints of the body, especially the knee joint.(HalahAtiyah et al., 2024)

Presentation, analysis and discussion of the results of the level of effectiveness of the high smash hit (position 2) according to the skill levels of the professional players of the four clubs

Table (3) shows the effectiveness rate for the high crushing hit center (2)

High smashing skill levels							
High crushing effectiveness center 2							
Overwhelming beating		Zero	1	2	3	4	Effectiveness ratio
	Southern gas	4	2	5	4	13	67%
	Erbil	3	2	7	2	12	67.3%
	Peshmerga	6	3	1	1	12	60.8%
	the police	1	2	1	-	6	70%

The researcher showed, through Table (3), the emergence of good moral percentages for the spiking skill from position (2). The researcher attributes the reason for the appearance of these good percentages to the fact that the player from position (2) always performs the spiking skill, in front of him is a blocking wall consisting of one player. (Easa et al., 2022) Only or rarely, there are two players in front of him. The reason for this is the difficulty of movement by the opposing team's focal player who is in position (3). Then he moves to position (4), where when the reception is good and the preparer has the ability to prepare for the focal players and for high smash players, the focal player's movement to position (4) is slow or difficult. Therefore, when a player in position (2) is characterized by the speed of hitting and the ability to change the direction of the smash hit, he will have a more effective rate of scoring points than other players in other positions. Therefore, it is required the players in this position must be characterized by length and high explosive power in order to be fast, and this comes through the period of practice that increases the improvement and development of skill accuracy for all basic skills in volleyball. (Salih et al., 2024)

Presentation, analysis and discussion of the results of the level of effectiveness of the high smash hit (4) according to the skill levels of the professional players of the four clubs

Table (4) shows the effectiveness rate for the high crushing hit center (4)

High smashing skill levels							
High crushing effectiveness position 4							
Overwhelming beating		Zero	1	2	3	4	Effectiveness ratio
	Southern gas	7	1	2	3	18	69.3%

	Erbil	5	1	1	3	13	69.5%
	Peshmerga	15	2	-	1	8	35.5%
	the police	4	1	1	2	9	46%

The researcher found, through Table (4), the emergence of good moral percentages regarding the level of performance of the spiking skill from position (4) in the (South Gas, Erbil) clubs, where the players of South Gas have players in position (4) who are professionals with physical, skill and tactical capabilities and are distinguished by their strength in Execution, speed in approaching, agility in jumping, and accuracy in direction. In addition, the players of position (4) have good experience in terms of exiting posts. (Abdulhussein et al., 2024)

As for the matches of the (Peshmerga and Police) clubs, the results showed that there were low or weak effectiveness rates in the skill of crushing strikes from position (4). The researcher attributes the reason for this to the discrepancy in the skill and tactical level, due to the lack of focus of the players of the (Police and Peshmerga) clubs and the lack of... Good behavior during the match, handling the ball, and also behavior when the preparation level is far from the net and when it is close as well, dealing with the high and low blocking wall, dealing with empty points in the opposing team's field, and how to behave and position the opposing team's back line players. Where the players for the clubs (Peshmerga, Police) were distinguished by defense, good coverage, and correct positioning. (Kadhim, 2024a)

Presentation, analysis and discussion of the results of the level of effectiveness of the high crushing hit, center (1), according to skill levels

Table (5) shows the effectiveness rate of hitting high position (1) for professional club players
The four

		High smashing skill levels					
		High crushing effectiveness position 1					
Overwhelming beating		Zero	1	2	3	4	Effectiveness ratio
	Southern gas	1	2	-	3	12	81%
	Erbil	2	1	3	4	11	75%
	Peshmerga	4	1	-	2	6	59.6%
	the police	8	2	4	-	6	42.5%

The researcher showed, through Table (5), the emergence of good effectiveness rates for the performance of the spiking skill from position (1) in the clubs (Gaz Al-Janoub, Erbil). The researcher attributes the reason for the appearance of these good percentages to the presence of a player in position (1) with high skill and physical qualities. The player in position (1) must understand the importance of the spike hit in scoring points more than the rest of the skills, as this player is called the “opposite” player (that is, the player who is the opposite of the number on the turn sheet and that the majority of the balls prepared for attack are for him and he is a player). It does not carry out the process of receiving the serve, meaning it has the greatest weight in the process of scoring points if it is implemented correctly. (Kazim et al., 2019) As for the clubs (Peshmerga, Police), little or low performance effectiveness appeared due to the presence of a very good blocking wall for the Libyan team, as well as the discrepancy in the skill and tactical level between our team. The Tunisian team did not show good effectiveness from the back line player from position (1) during those two matches. Also, the police team was distinguished by good defense and a good libero who was able to defend all the attacking strikes of the player from position (1). The skill of crushing strikes requires high speed in performance and Accuracy in implementation due to the large number of variables at the same time It is one of the skills that increases the excitement, suspense, and enthusiasm of the players and the audience, as well as it gives the players a competitive character. (Kadhim, 2024b)

Conclusions and recommendations

Conclusions:

- 1- There is a weakness in the serving skill of the ace and flutter types among professional club players
- 2- The performance level of the high spike hit skill from position (2) is better than the high spike hit skill from position (4)
- 3- Variation in performance level percentages for high spikers from position (1) between one match and another based on the effectiveness of the opposing team. **Q**

Recommendations:

- 1- Training on accuracy, focus, and speed in hitting the ball on the ace and flutter to increase effectiveness
- 2- Introducing fun and excitement into training different types of serve, as well as increasing motivation
- 3- Increase the number of friendly matches with high-level teams in order to develop the skill level of the players

References

- Abdulhussein, A. A., Dheyab, A. S., Abdulkareem, O. W., mutar Albadri, E. H., Hammood, A. H., Musa, M. F. A. H., Kadhim, M. J., & AbdulMaged, T. S. (2024). AN ELECTRONIC SYSTEM ACCORDING TO THE COOPERATIVE METHOD AND ITS IMPACT ON DEFENSIVE MOVEMENTS IN YOUTH BASKETBALL. *International Development Planning Review*, 23(1), 1253–1266.
- Abed, I. S., Khlaif, I. K., & Salman, S. M. (2022). The effect of therapeutic physical exercises in the rehabilitation of the knee joint injured partial rupture of the medial meniscal cartilage for football players. *Revista Iberoamericana de Psicología Del Ejercicio y El Deporte*, 17(5), 275–278.
- Ali Mustafa Taha; Volleyball, history - education - training - analysis - law, 1st edition: (Cairo. Dar Al-Fikr Al-Arabi, 1999).
- Aqeel Al Kateb and Amer Jabbar; International Volleyball Rules 2000 – 2004: (Baghdad, 2001)
- Damon Faraj Karim, defending the court and preparing for the spike and its relationship to achievement in volleyball, (Master's thesis, College of Physical Education, 1999)
- Deborah W. cries field: Wining volleyball for girls, Mountain lion book, Facts on file anon FoxBASE holding company 1995,
- Easa, F. A. W., Shihab, G. M., & Kahdim, M. J. (2022). the Effect of Training Network Training in Two Ways, High Interval Training and Repetition To Develop Speed Endurance Adapt Heart Rate and Achieve 5000 Meters Youth. *Revista Iberoamericana de Psicología Del Ejercicio y El Deporte*, 17(4), 239–241.
- Hafez C. A. A., & Youssef T. A. (2020). The effect of exercises similar to match situations according to the statistics of the analytical program (click scout)) on some types of skill performance of some players of the Iraqi Elite Volleyball League 2018-2019. *Physical Education Magazine*, 31(3) , 153–166. [https://doi.org/10.37359/JOPE.V31\(3\)2019.870](https://doi.org/10.37359/JOPE.V31(3)2019.870)
- HalahAtiyah, M., Alhamayd, Q. A., QasimKhalaf, S., AmerAbdulhussein, A., JawadKadhim, M., KohChoonLian, D., HashimHammood, A., & YahyaFaris Mohsen, G. (2024). EXTRAPOLATION OF THE MACHINE AND ITS EFFICIENCY IN DEVELOPING THE SKILL PERFORMANCE AND ACCURACY OF DRIBBLING IN YOUTH FOOTBALL. *International Development Planning Review*, 23(1), 1037–1047.
- Jawad A. F., & Azab A. A. (2021). An analytical study of the smashing skill and its relationship to the tactical performance of the blocking wall for players of Iraqi Premier League volleyball clubs 2020-2021. *Physical Education Magazine*, 33(4) , 208–218. [https://doi.org/10.37359/JOPE.V33\(4\)2021.1226](https://doi.org/10.37359/JOPE.V33(4)2021.1226)
- Jawad A. F., & Azab A. A. (2021). An analytical study of the smashing skill and its relationship to the tactical performance of the blocking wall for players of Iraqi Premier League volleyball clubs 2020-2021. *Physical Education Magazine*, 33(4) , 208–218. [https://doi.org/10.37359/JOPE.V33\(4\)2021.1226](https://doi.org/10.37359/JOPE.V33(4)2021.1226)
- Jawad A. F., & Azab A. A. (2021). An analytical study of the smashing skill and its relationship to the tactical performance of the blocking wall for players of Iraqi Premier League volleyball clubs 2020-2021. *Physical Education Magazine*, 33(4) , 208–218. [https://doi.org/10.37359/JOPE.V33\(4\)2021.1226](https://doi.org/10.37359/JOPE.V33(4)2021.1226)
- jersey GR and fisher: scientific of athletics condoling (2 Nd Philadelphia 1979)
- Journal No . 3- November , 1980 ,
- Kadhim, M. J. (2024a). Digital Literacy and Its Importance in the Modern Workforce. *International Journal of Social Trends*, 2(2), 44–50.
- Kadhim, M. J. (2024b). Social Networks' Place in Contemporary Political Movements. *International Journal of Social Trends*, 2(2), 51–59.

- Kazim, M. J., Zughair, A. L. A. A., & Shihab, G. M. (2019). The effect of zinc intake on the accumulation of lactic acid after cooper testing among football Premier league referees. *Sciences Journal Of Physical Education*, 12(5).
- Khalil Sattar Muhammad; A comparative study using an analytical program on the level of effectiveness of skills and tactical formations for the Iraqi national team and some Arab volleyball teams, Master's thesis, University of Baghdad, College of Physical Education, 2012
- Marion Y.L. Alexander: A Kinesiological Analysis of the Spike in Volleyball Technical · Mondher, H. A., & Khalaf, S. Q. (2023). The Effect of Game–Like Exercises on the Development of Some Physical Abilities and Fundamental skills In Futsal. *Journal of Physical Education*, 35(2).
- Mondher, H. A., Sabah, P., & Khalaf, Q. (2023). The Effect of Compound Exercises with the Intense Method and the Training Mask on the Development of Some Physical Abilities and the Level of Skillful Performance of Futsal Players. *Pakistan Heart Journal*, 56(01), 310–323.
- Muhammad Hassan Allawi; sports training science, 13th edition: (Cairo, Dar Al-Maaref, 1994).
- Muhammad Saad Zaghoul and Muhammad Lotfi Al-Sayyid; Technical foundations of volleyball skills for the teacher and coach: (Cairo, Al-Kitab Center for Publishing, 2001)
- Muhammad Sobhi Hassanein and Hamdi Abdel Moneim; Methods of analyzing a match in volleyball, 1st edition: (Cairo, B.M., 1986)
- Munaf, S. M., Ali, A. A., & Mohammed, K. S. (2021). BUILDING AND RATIONING SCALE MANAGEMENT CONSTRAINTS OF E-LEARNING FROM THE PERSPECTIVE OF TEACHING THE FACULTY OF PHYSICAL EDUCATION AND SPORTS SCIENCE UNIVERSITY OF BAGHDAD. *Turkish Journal of Physiotherapy and Rehabilitation*, 32, 3.
- Nahida Abd Zaid, The level of performance of defensive and offensive skills and its relationship to the ranking of teams in volleyball, Master's thesis: (College of Physical Education, University of Baghdad, 1997)
- Nashwan, N. A. (2024). Assessment Methods and their Effectiveness in Evaluating Physical Fitness in School Settings. *International Journal of Religion*, 5(6), 657–668.
- Nashwan, N. A., & Alzoubi, A. S. (2022). *The role of the faculty of physical education in developing citizenship values from the perspective of postgraduate students at Yarmouk University*.
- Rennin Lid or: Developing mental skills serving. Coaching volleyball, Feb – March – 1995, Riyad Khalil Khamas (and others); Volleyball history, skills, plans, match management(Baghdad, The Good Word Press, 2012)
- Salih, I. H., Yaseen, A. M., Naseer, K. J., Attieh, A., & Kadhim, M. J. (2024). THE IMPACT OF COMPETITIVE SPEED EXERCISES ON JUNIOR BOXERS' EFFECTIVENESS OF SKILL PERFORMANCE AND COUNTERATTACK SPEED. *International Development Planning Review*, 23(1), 149–162.
- Shams Hikmat Mahdi R. Kh. Kh. (2019). The effect of special exercises according to some thinking patterns (Herman) in learning the skill of hitting volleyball for second-year students in the College of Physical Education and Sports Sciences. *Physical Education Magazine*, 30(3) , 1–22. [https://doi.org/10.37359/JOPE.V30\(3\)2018.394](https://doi.org/10.37359/JOPE.V30(3)2018.394)
- Subhan Sakhi H. (2019). The percentage of contribution of some motor abilities to the speed and accuracy of performing various types of serve skills for volleyball players. *Physical Education Magazine*, 25(4) , 17–41. [https://doi.org/10.37359/JOPE.V25\(4\)2013.617](https://doi.org/10.37359/JOPE.V25(4)2013.617)

- Tariq Ali Youssef; The effect of specialized skill exercises according to an analytical program using the computer on the skill effectiveness rate of volleyball players. Doctoral dissertation, University of Baghdad, College of Physical Education, 2011.
www.data_project.com
- Yasir, A. M., Hammood, H. S., & Sikhe, H. S. (2020). Special skill exercises to develop mechanical movement behavior and the accuracy of Setting skill performance for volleyball players. *International Journal of Psychosocial Rehabilitation*, 24(05).
- Youssef T. A. (2019). The effectiveness of the contribution rate of some biomechanical variables to the skill performance of hitting the back smash with a volleyball. *Physical Education Magazine*, 23(2) , 314–342. [https://doi.org/10.37359/JOPE.V23\(2\)2011.541](https://doi.org/10.37359/JOPE.V23(2)2011.541)
- Youssef T. A. (2019). The effectiveness of the contribution rate of some biomechanical variables to the skill performance of hitting the back smash with a volleyball. *Physical Education Magazine*, 23(2) , 314–342. [https://doi.org/10.37359/JOPE.V23\(2\)2011.541](https://doi.org/10.37359/JOPE.V23(2)2011.541)
- Zahraa, Sa. A., & Ali, A. F. (2022). The Effect of Musculus Rhomboideus fibromyalgia Rehabilitation Program in Youth and Advance Freestyle and Greco–Roman Wrestlers. *Journal of Physical Education*, 34(2).