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The effect of special exercises on some Biomotor abilities and the indicator of serving accuracy and spiking for volleyball players

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Abstract
The importance of the research lies in the preparation of special exercises for the development of some important biomotor abilities and the indicator of accuracy of serving and spiking, which has the effect of raising the technical level of volleyball players. While the research problem was that the ball player suffers from a weakness in the biomotor abilities, which has an important impact on the indicator of the accuracy of the serving and spiking of the volleyball players.
This study aimed to prepare special exercises for the development of some of the biomotor abilities and the indicator of accuracy of serving and spiking of volleyball players, and then to identify their impact, and I assume that there is a positive effect of special exercises according to the level of difficulty, a positive impact on the development of some of the biomotor abilities and the indicator of accuracy of serving and spiking of players volleyball.
The researcher used the experimental approach with two experimental and control groups due to its suitability to the nature of the research problem, as the research community included a group of volleyball players in the Project Sports Club at the ages of 15-17 years for the season 2022, whose number is (20) players, and then they were randomly divided into two experimental and control groups by (8) players for each group, and then do the pre-test, the researcher started with one starting line to implement the special exercises set along the duration of the training curriculum, and after applying the exercises, the researcher did a post-test and obtained data, after which these data were treated statistically, and then information was obtained on which conclusions were built, the most important of which is that special exercises have an effective role in developing biomotor abilities research is significantly under the experimental group.
The development of biomotor abilities had a tangible impact on the development of the indicator of accuracy of serving and spiking for volleyball players, and then the researcher recommended the need to design training programs determined in the light of the abilities of the players and higher in order to ensure the remarkable development and the development of biomotor abilities had a tangible impact in developing the indicator of accuracy of serving and spiking of volleyball players.

Keywords: Biomotor abilities, accuracy indicator, serving, spiking, volleyball

Introduction
The game of volleyball has witnessed a great and rapid development in recent years and in all aspects related to it, which prompted a change in the nature of the game and its character with accuracy and speed of performance, and for this reason the efforts of specialists in this game were devoted to laying scientific foundations and principles in preparing the basic base of players and preparing the necessary requirements to reach these players to the best levels. And that the development of biomotor abilities is a basis upon which coaches and players rely, so biomotor abilities have become a vital and complementary part of the success of any training program that aims to raise the level of physical and skillful performance of players, especially volleyball players; This is due to the peculiarity of this game in performance as well as the diversity in its positions, and therefore requires coaches to take into account the obstacles that players are exposed to during the match, and one of its sources is weakness in biomotor abilities (Radhi Abdul Hussein, A., Kadhim Hrebid, N., & Jabber Mohamed, J. 2022) [10]. Among the basic skills in volleyball that require good amounts of biomotor abilities are the skills of serving and spiking, the serve is one of the most important direct offensive skills that

players use to get a direct point, and this requires the opposing team to take a defensive position, which increased the importance of this skill, in addition to the crushing hitting skill, which is one of the offensive skills that, upon its performance, requires several biomotor abilities. As the foregoing leads us to a recognized fact that if the two players are at the same level of skill and planning, then the player with a high physical and mental level is the one who will be able to control the course of the match, so the physical, motor and mental side plays a major role in the game of volleyball. As for high development, it has become linked above all not to the increase in training volumes, but to the most effective selection of training methods and methods, and how to focus on rationing training doses that achieve the best results, meaning that progress will occur at the expense of the quality of training and choosing the appropriate skillful performance according to the playing positions during the match.

The serve and the spiking of the volleyball players will not be effective unless they are performed quickly and accurately and contain the element of surprise for the opponent, and this is the core of our topic as an indicator of the accuracy of the serving and the spiking.

The importance of the research lies in the development of special exercises for some of the important biomotor abilities by developing the indicator of the accuracy of the serving and the spiking, which has the effect of raising the technical level of the volleyball players.

Research Problem

The research problem was determined that the volleyball player hesitates to implement the serve and the overwhelming hit decisively even if he had a good opportunity to do so, and if he did it, it would be in an ineffective manner, such as being fast but inaccurate, or accurate but not fast, and so on, this matter is due to the weakness of the physical and motor side of the player because of his interest and inclination to deal with the ball and to stay away from developing the biomotor abilities aspect of it, and thus the negative impact on the skill of serving and spiking. And through the field experience of the researcher and his knowledge of many scientific sources, he worked on a scientific study to develop some of the biomotor abilities and thus develop the indicator of the accuracy of the serving and the spiking it through preparing special exercises for volleyball players.

Research objective

- Preparing the effect of special exercises to develop some of the biomotor abilities and the indicator of the accuracy of serving and spiking for volleyball players.
- Identify the effect of special exercises for the development of some of the biomotor abilities and the indicator of accuracy of serving and spiking of volleyball players.

Research hypotheses

- Special exercises according to the level of difficulty have a positive effect on the development of some of the biomotor abilities and the indicator of the accuracy of serving and the spiking of the volleyball players.

Research fields

The human field: Volleyball players in Al-Mashrou' Sports Club, ages 15-17, for the 2022 season.

Time field: From 1/5/2022 to 31/8/2022.

Spatial field: Al-Mashrou' Sports Club Stadium - Babil Governorate.

Research methodology and field procedures

Research Methodology

The researcher used the experimental approach due to its suitability to the nature of the research phenomenon in one of its basic designs called (the design of the experimental and control groups with a pre and post test). The experimental group did the special exercises prepared by the researcher, and the control group did the special exercises approved by the trainer, as shown in Figure (1).

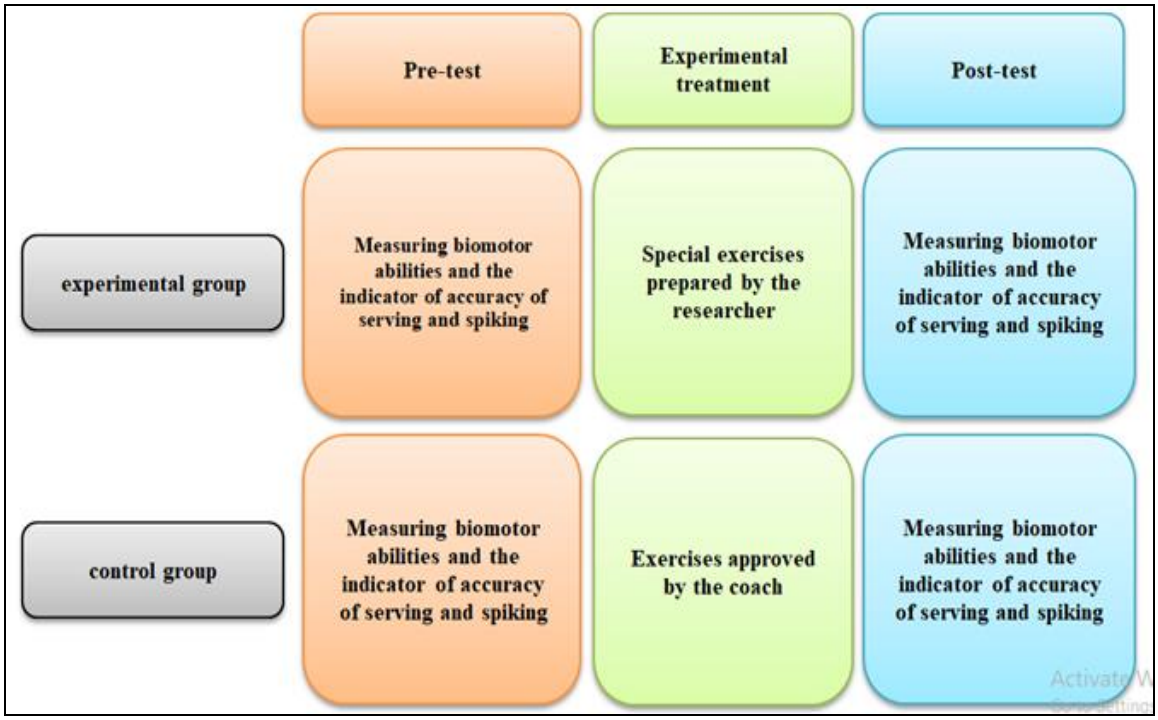

Fig 1: The experimental group did the special exercises prepared by the researcher, and the control group did the special exercises approved by the trainer.

Research community and sample

The researcher identified the research community with volleyball players in the Al-Mashrou' Sports Club, aged 15-17 years, for the season 2022, and they numbered 20 players. As for the research sample, it consisted of 16 players who had been researched. As the percentage of the sample was 80% of the original community, who were chosen in a deliberate manner and divided randomly into two groups, experimental and control, with 8 players per group. The researcher sought to find out the homogeneity of the research sample by knowing the arithmetic mean, standard deviations, and the torsion coefficient.

Table 1: shows the homogeneity of the research sample.

Variables	Measuring unit	Mean	Std. Deviation	Std. Deviation	Sig type
Length	Cm	166.75	5.84	0.522	Sig
Arm length	Cm	54.83	2.73	0.432	Sig
Mass	Kg	68.50	1.24	0.178	Sig
Age	Year	16.50	0.92	0.635	Sig
Training age	Month	69	3.15	0.724	Sig

We infer the normal distribution through the results of the torsion coefficient for all statistical variables, which occurred between (±1), and thus the homogeneity of the research sample was achieved.

After the homogenization was completed, the researcher divided the research community into two groups, an experimental and a control group, with (8) players for each group, at a rate of (50%) of the research sample, as the groups were divided randomly (lottery).

The researcher went to find out the homogeneity of the two research groups through the use of Levin's law and knowing the level of significance (F) calculated through Levin's law and comparing it with the level of significance (0.05), as detailed in Table (2).

Table 2: Shows the homogeneity of the two research groups in the variables under study:

Variables	Experimental		Control		Levin's value	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
Training age	73.00	5.86	71.66	6.58	1.93	0.32	Non sig
Age	16.56	0.93	16.73	0.98	0.62	0.35	Non sig
Length	172.83	0.01	176.17	0.11	6.7	0.17	Non sig
Mass	66.50	2.73	65.50	2.43	0.29	0.63	Non sig
Arm length	51.16	2.72	50.50	2.68	0.10	0.57	Non sig
The explosive power of the arms	1.11	0.09	1.19	0.11	0.21	0.74	Non sig
coordination between eye and arm	7.50	1.10	7.33	1.12	0.30	0.78	Non sig
serving accuracy indicator	1.90	1.19	1.88	0.21	1.05	0.45	Non sig
spiking accuracy indicator	2.86	0.22	2.89	0.25	0.24	0.71	Non sig

Through the results of Table (2), it is clear that the value of the level of significance of the (Levine) coefficient for all variables is greater than the level of significance (0.05), which indicates the homogeneity of the research sample members.

Means of collecting information, data, devices and tools used in the research

Research Methods

1. Testing and measurement.
2. The resolution.
3. Academic sources and references.
4. Personal interviews.
5. Observation.
6. One (1) legal volleyball court.
7. Colored ribbons.
8. Measuring tape number (2).
9. Red adhesive tape (2.5) cm.
10. (1) Lenovo computer.
11. (1) Nikon camera.
12. (1) Data show device.
13. Medical scale number (1).
14. One (1) digital stopwatch.
15. Colored flags and cones (red, blue, yellow, green), number (12).
16. Training ladder (4 m), number (4).
17. Medicine balls (6) of various weights.
18. Hoops with a diameter of (1 m).
19. Rubber ropes of different resistances.
20. Various stationery.

Field research procedures

Determination of biomotor abilities

Through the researcher's field experience and his scientific Study, biomotor abilities were determined based on the research problem. In addition, he consulted a number of experts and specialists in sports training, motor learning, volleyball, testing and measurement, as their approval came unanimously at a rate of (100%).

The biomotor abilities were determined as follows

1. The explosive power of the arms.
2. Coordination between eye and arm.

Determine the physical and skill tests

The biomotor abilities tests were determined by the researcher, however, he made sure of the validity of the tests used by presenting them to a group of experts and specialists in sports training, motor learning, volleyball, testing and measurement, as their approval came unanimously at a rate of (100%).

First: Testing the explosive ability of the arms: (Shaalan, Muhammad Hassan,2021, p. 74) [1].

Test name: Throwing a medicine ball 3 kg with two hands with a sitting position:

Purpose: to measure the explosive force of the muscles of the arms.

Tools: A medicine ball weighing 3 kg - tape measure - Chair with belt to securely fix the torso on the chair.

Performance specifications: The tested player sits on the chair and carries the medical ball with both hands in front of the chest and the torso is adjacent to the edge of the chair. The belt is placed on the tester's torso and is attached to the back edge of the chair; For the purpose of preventing the tester from moving forward while throwing the ball with the hands, so that the process of throwing the ball with the hands can be done without using the torso. Figure (2) shows the method of performing the test.

Registration: Each tester is given three attempts and the distance of the best attempt is recorded.

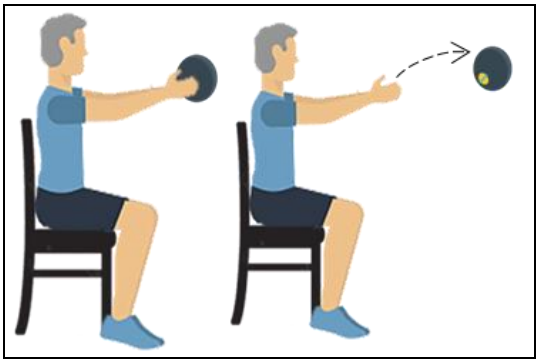

Fig 2: Shows the test of throwing a medicine ball 3 kg with two hands in a sitting position

Second: testing the motor coordination between the eye and the arm

Test name: Throwing and receiving balls on the wall: (Al-Hakim, Ali Salloum Jawad, 2004, p. 149) [2].

Purpose: To measure motor coordination between the eye and the arm.

Tools: A tennis ball, a wall, a line is drawn at a distance of (5) meters from the wall as in Figure (3).

Performance specifications: The experimenter stands in front of the wall and behind the line drawn on the floor and begins to perform.

- Throwing the tennis ball five times in a row with the right hand, provided that the tester receives the ball after it bounces off the wall with the same hand.
- Throwing the tennis ball five times in a row with the left hand, provided that the tester receives the ball after it bounces off the wall with the same hand.
- Throwing a tennis ball five times in a row with the right hand, provided that the laboratory receives it after it bounces off the wall with the left hand.

Registration: For each correct attempt, a score is calculated for the laboratory, meaning that the final score is (15) points.

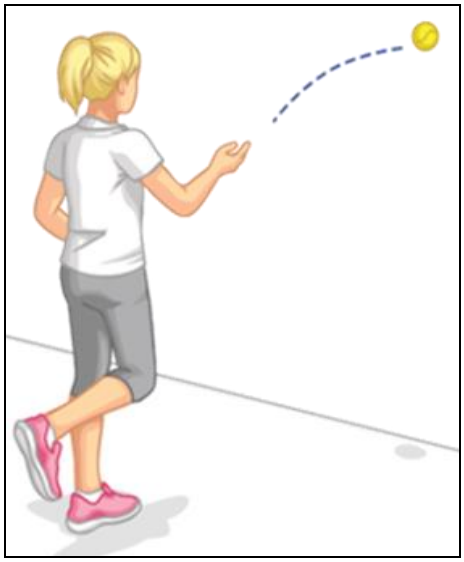

Fig 3: Shows the test of throwing and receiving balls on the wall

Third: Testing the accuracy of the facing serving from above (tennis) in volleyball: (Jaber, Ali Qassem, 2016, p. 68) [3].

- **The name of the test:** Iver to measure the accuracy of transmission from the top (tennis).
- **The aim of the test:** measuring the accuracy of the serve from above (tennis).
- **Tools used:** Volleyballs, legal volleyball court, measuring tape, colored tape, and a pre-prepared evaluation form.

Performance method: The tested player stands in the designated area for serving and performs the facing serve from the top (tennis) in a legal way so that the ball crosses the net to the opposite court, and the tested player performs (5) attempts.

- **Registration:** The score of the area in which the ball falls is calculated for the tested player, and if the ball falls on the line of two areas, the score of the higher area is calculated.
- **The total score for the test:** it is (20) points, as shown in Figure (4).

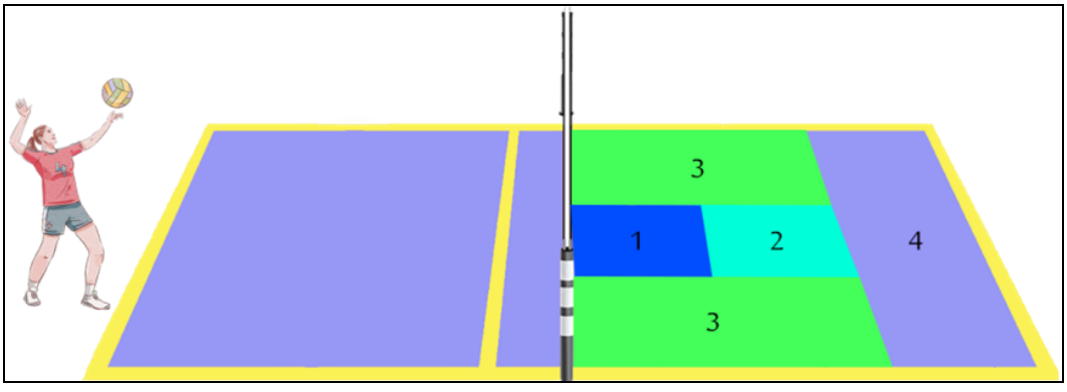

Fig 4: Shows the test of the accuracy of the serve from above (tennis) in volleyball

Fourth: diagonal spiking multiplication test: (Hassanein, Muhammad Subhi & Moneim, Hamdi Abdel, 1997, pp. 247) [4].

The purpose of the test: Measure the accuracy of the diagonal spiking in the inner triangle of the opponent's court.

Performance method: The court is divided as shown in Figure (1), so that the court is divided into two triangles (the opposite half of the court), then the inner triangle, on the side of the net, is divided into three zones, the width of each zone is (3) m. After preparation, the tester crushes the diagonal towards the inner triangle on the side of the grid.

Conditions

1. For each tester, five attempts.
2. Preparation must be good in each attempt.
3. Scores are calculated according to the place where the ball landed, as follows:
   A. In the first region (3) degrees.
   B. In the second region (1) degrees.
   C. In the third region (5) degrees.
   D. Outside these areas, the tester gets (zero).
      - The tester records the grades obtained in the five attempts, i.e. the final score for this test is (25) degrees.

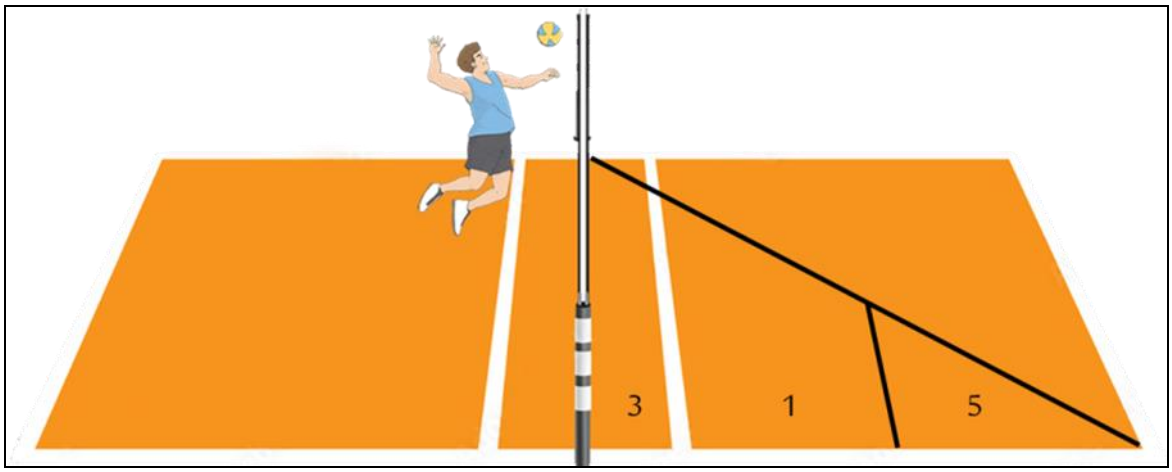

Fig 5: Diagonal spiking multiplication test

An indicator of the accuracy of the serving and spiking

The accuracy indicator was found through two arbitrators using a stop watch, as the researcher measured the speed of the ball from the moment it was hit until it fell to the ground. (Al-Fatlawi, Nagham Saleh Nehme, 2018, p. 74) [5].

Registration: the rate of attempts performed by the player is calculated divided by the average time of each attempt, as this rate forms the indicator of the accuracy of the flying strike for each player.

Exploratory experience

The researcher conducted a reconnaissance experiment on (4) players, which included a reconnaissance for the exercises and tests under discussion, on Monday 02/05/2022 at the Al-Mashrou' Sports Club stadium in Babil Governorate, to achieve the following purposes:

1. Preparing the auxiliary work staff.
2. Discover the obstacles that may appear during the main experiment.
3. Ensure the validity of the devices and tools used.
4. Calculating the maximum rates and times of exercises and extracting the average times for the players.
5. Rationalization of training loads.
6. Extracting the rate of complete rest times after each maximal performance by calculating the rate of return of the player's pulse to (110-120 beats/min).
7. Determine the test time.
8. Calculating the scientific foundations of the tests.

The Exploratory experience showed the following

1. Appropriateness and validity of the devices and tools used for the experiment.
2. The location and its adequacy for conducting the main experiment.
3. The researcher noted the adequacy and efficiency of the assistant work staff.
4. The time required to perform the tests has been determined.
5. The average times for the maximum performance of the players were determined, as well as the average rest times for all exercises.

Scientific Transactions

Validity: The researcher used the validity of the content, as well as by distributing a questionnaire to experts and specialists in the fields of (tests, measurement and volleyball), and they all agreed (100%) on the validity of the tests.

Reliability: The researcher used the method of testing and re-testing to extract the reliability coefficient. The first test was on Monday 02/05/2022, and the test was repeated after a week on Monday 09/05/2022. Based on the results and using the simple Pearson correlation coefficient, the reliability coefficient of the tests was found.

Objectivity: The objectivity of the tests was calculated by finding the simple correlation coefficient (Pearson) between the scores of two arbitrators, who set scores for the exploratory sample during the performance of the tests, and then extracted (R) values to show the significance of the correlation coefficient between the two tests, as in Table (3), which indicates a correlation high among the arbitrators' evaluation.

Table 3: Shows the reliability coefficients of the tests under study:

Test	Reliability	Objectivity
The explosive power of the arms	0.92	0.94
coordination between eye and arm	0.91	0.92
serving accuracy indicator	0.94	0.96
spiking accuracy indicator	0.93	0.95

Pre-tests

Pre-tests were conducted for both research groups on Thursday 12/05/2022. In order to identify the equivalence of the two research groups, the calculated (t) value was extracted, as shown in Table (4).

Table 4: Shows the equivalence of the two research groups:

Variables	Experimental		Control		T value	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
The explosive power of the arms	1.11	0.09	1.19	0.11	1.857	0.457	Non sig
coordination between eye and arm	7.50	1.10	7.33	1.12	0.534	0.314	Non sig
serving accuracy indicator	1.90	1.19	1.88	0.21	0.175	0.961	Non sig
spiking accuracy indicator	2.86	0.22	2.89	0.25	0.285	0.866	Non sig

Table (4) shows that the levels of significance for all variables are greater than (0.05), which indicates that there are no significant differences between the two research groups, and this indicates the equivalence of the two groups in the variables under study, and this is what gives the researcher to start with one starting line and apply the special exercises.

Implementation of special exercises

- The implementation of the special exercises took 24 training units distributed over (8) weeks.
- The number of training units per week (3) units.
- The duration of the training unit is (90) minutes, of which (75) minutes were taken as part of the main part.
- Special exercises were applied during the preparation period of the high-intensity and repetitive interval training method.
- The researcher followed the gradient and undulation of the training load in giving the exercises.
- The implementation of the special exercises began on Sunday (15/5/2022) and ended on Thursday (07/07/2022).

Post-tests

The post test were conducted on Sunday 10/07/2022, as the same conditions, instructions and conditions that were used in the pre test were observed.

Statistical means

The researcher used the statistical package (SPSS) version (26) to process the data that was reached.

Presentation, analysis and discussion of the results

Presentation and analysis of the results of biomotor abilities and the accuracy indicator of volleyball skills

Presentation and analysis of the results of biomotor abilities and the accuracy indicator of volleyball skills for the experimental group in the pre-post test

Table 5: Shows the means, standard deviations, the value (t) of the biomotor abilities, and the accuracy indicator of volleyball skills for the experimental group in the pre-post-test.

Variables	Pre-test		Post-test		T value	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
The explosive power of the arms	1.11	0.09	2.15	0.10	9.43	0.03	sig
coordination between eye and arm	7.50	0.10	11	0.97	6.55	0.02	sig
serving accuracy indicator	1.90	1.19	2.85	0.89	7.95	0.01	sig
spiking accuracy indicator	2.86	0.22	4.25	0.30	7.20	0.02	sig

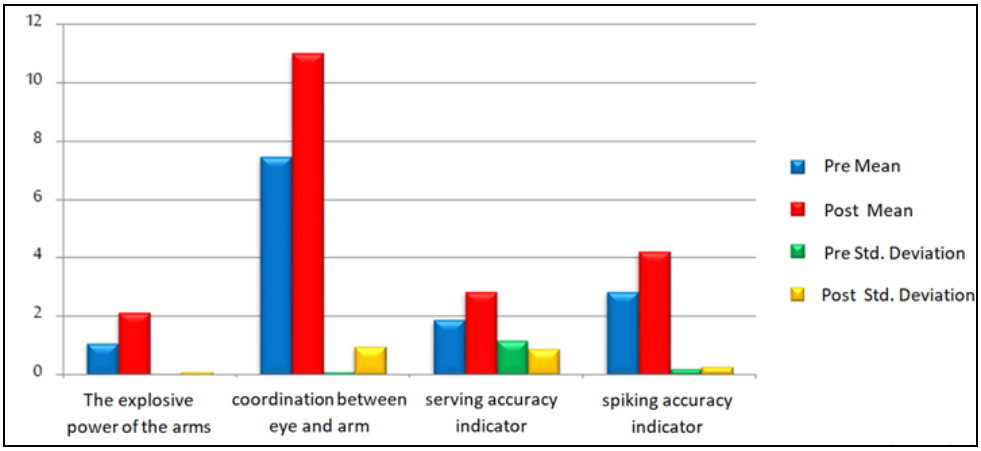

Fig 6: Shows a comparison of the mean, standard deviations, the value (t) of the biomotor abilities, and the accuracy indicator of volleyball skills for the experimental group in the pre-post test.

Presentation and analysis of the results of biomotor abilities and the accuracy indicator of volleyball skills for the control group in the pre-post test

Table 6: Shows the arithmetic means, standard deviations, the value (t) of the biomotor abilities, and the accuracy indicator of volleyball skills for the control group in the pre-post test

Variables	Pre-test		Post-test		T value	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
The explosive power of the arms	1.19	0.11	1.95	0.83	4.80	0.04	sig
coordination between eye and arm	7.33	1.12	9	1.67	3.45	0.03	sig
serving accuracy indicator	1.88	0.21	1.95	1.74	2.65	0.03	sig
spiking accuracy indicator	2.89	0.25	2.98	1.92	2.75	0.04	sig

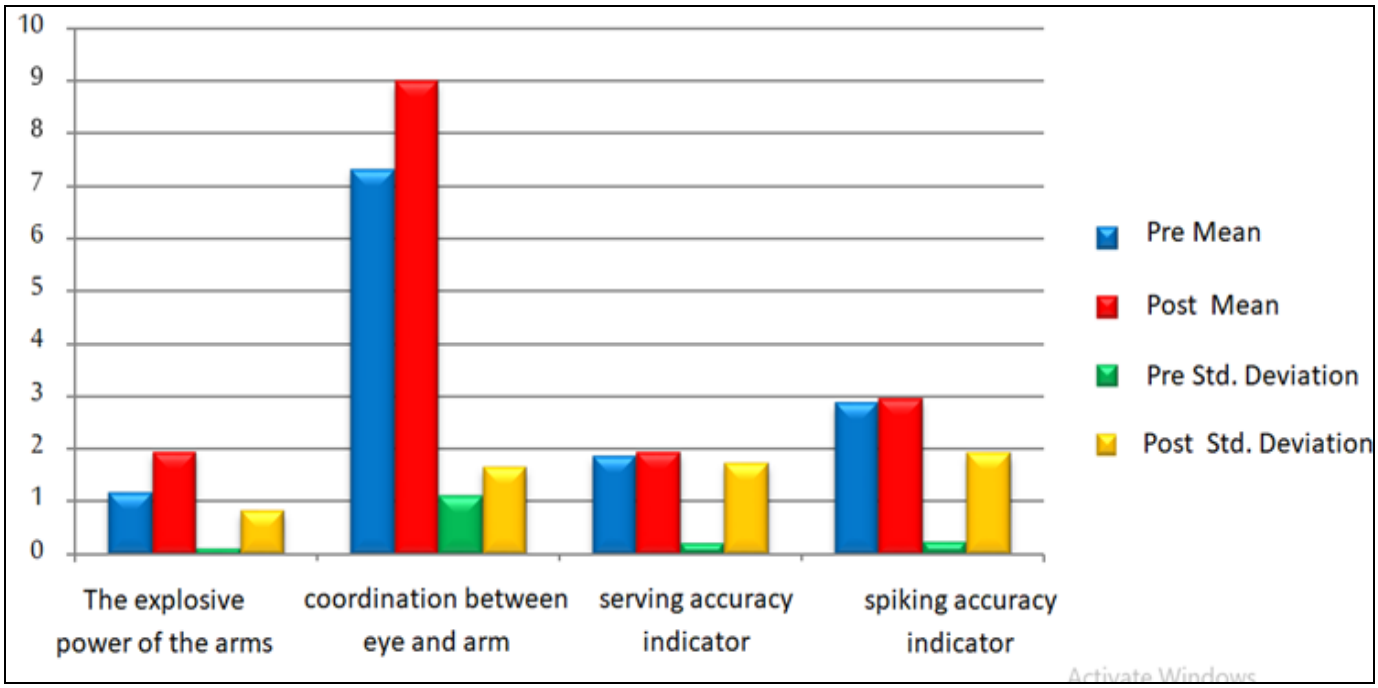

Fig 7: Shows a comparison of the means, standard deviations, the value (t) of the biomotor abilities, and the accuracy indicator of volleyball skills for the control group in the pre-post test

And since the researcher found that the two research groups developed in the post-test compared to the pre-test, and in order to determine the preference of development, the researcher must make a comparison in the development of both groups, and whether the special exercises that were applied to the players of the experimental group had an impact and a significant difference.

Presentation and analysis of the results of the biomotor abilities and the accuracy indicator of volleyball skills for the two research groups in the post-test

Table 7: Shows the arithmetic mean, standard deviations, the value (t) of the biomotor abilities, and the accuracy index of volleyball skills for the two research groups in the post-test.

Variables	Experimental		Control		T value	Sig level	Sig type
	Mean	Std. Deviation	Mean	Std. Deviation			
The explosive power of the arms	2.15	0.10	1.95	0.83	5.45	0.02	sig
coordination between eye and arm	11	0.97	9	1.67	4.50	0.00	sig
serving accuracy indicator	2.85	0.89	1.95	1.74	4.96	0.01	sig
spiking accuracy indicator	4.25	0.30	2.98	1.92	4.35	0.01	sig

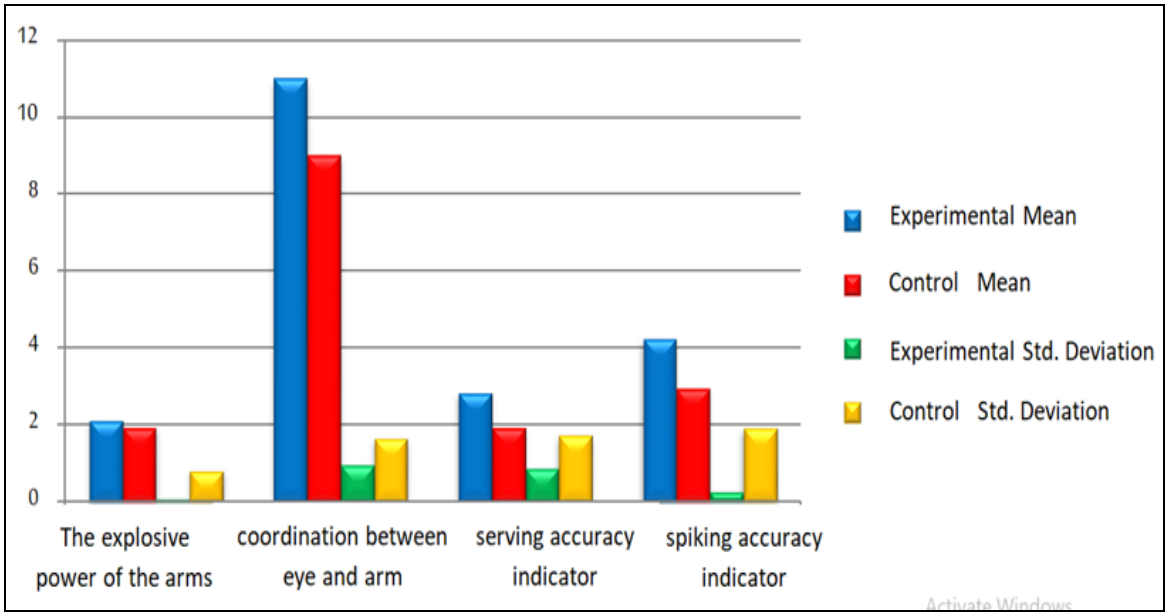

Fig 8: Shows a comparison of the means, standard deviations, the value (t) of the biomotor abilities, and the accuracy indicator of volleyball skills for the two research groups in the post-test.

Through what has been presented in Table (7) of the results of the post-test for the two research groups, the researcher noticed that there is a significant difference in favor of the experimental group, as it has the highest arithmetic mean and for all the researched variables, as shown in Figure (8).

Discussing the Results

Discussing the results of biomotor abilities

By displaying the results of the post-test and analyzing them as in Table (7) to test the explosive ability of the arms and the kinetic compatibility between the eye and the arm, and those between the presence of a significant difference between the experimental group and the control and in favor of the experimental group and they are among the biomotor abilities that have been focused on in the exercises used by the researcher, as special exercises were used to develop the explosive ability of the arms, and these exercises proved their effectiveness clearly on the experimental group, here the special exercises had a role in keeping the players away from boredom and the desire to perform more and more because it represents an exciting and exciting factor, and this is confirmed by Abu El-Ela Ahmed, “The high physical level the athlete relies on competition exercises and special exercises related to the type of specialized sports activity. (Ahmed, Abu Al-Ela, 1997, p. 200) [6].

As the researcher attributes the cause of the significant differences to the use of special exercises, in which exercises were used aimed at performing strong movements at maximum speed according to the scientific and standardized training standards, as we note that these exercises have affected the results of the post-tests, which were performed by the players with body weight, as they were dealing with body mass. As a resistance "and the fact that the mass is constant when performing the exercises, the players deal with the same level of strength to overcome the resistance because it is constant, and this means the stability of muscle strength when performing, which led to better adaptations for the muscles working on the same resistance, and this feature enabled the athletes to perform the movements in a shorter time due to the stability of strength and output It is the improvement of speed in the power equation, which led to an improvement in the explosive ability of the muscles of the arms. (Rashad Abbas Fadhil, Maher Abdul Hamza Hardan Hudhaifa Ibrahim Khaleel, 2021) [7].

Also, eye coordination exercises were used with the arm, and these exercises proved their effectiveness on the experimental group, describing the exercises inside the stadium and according to the skillful performance of the game in terms of the players' application of the exercises and the motor coordination with them.

The researcher attributes the reason for the development to the fact that the special exercises prepared by the researcher contributed greatly to increasing the amount of duties that were carried out and the performance of the motor coordination that the sample obtained through the training unit, as some exercises for motor coordination that serve the game of volleyball were developed.

The researcher agrees with Furat Jabbar on what he indicated, "The motor learning is linked to the growth of the functioning of the internal organs and is associated with building motor coordination and building motor traits, meaning that motor coordination is part of the high motor achievement of sports activity to reach the development of movements in a high manner, so motor coordination It is the essence of motor learning. (Saad Allah, Furat Jabbar, 2015, p. 105) [8].

Discussing the results of the accuracy of the serving and the spiking hit

As a result of the development of the experimental research group in the variable of explosive power and motor compatibility, and then to the implementation of this group of special exercises prepared by the researcher, and accuracy in volleyball is very important for the player's performance in the match as it enables him to perform in the right place during the game, which leads to control over Match and win, also, speed is of great importance, as it is necessary for the player to execute his strike quickly and accurately. Sometimes the accuracy is not sufficient to the extent that gives the player the opportunity to decide the circulation, and here the development of the accuracy indicator was of great importance in the game of volleyball.

The researcher attributes that it is very natural to notice the significant difference that occurred to the experimental group, which was clear, due to their application of many special

exercises that were prepared scientifically and thoughtfully. As all of these reasons made the researcher see that the training units were able to raise the performance rate of the experimental group by motivating the player to perform more than one compound exercise, as a state of suspense, diversity, and competition appeared between the players and positive participation, and this is what aroused enthusiasm and motivation among them, and (Amer Saeed) indicated Al-Khikani and others) "Sports activity is one of the types of human behavior, so it is affected by the various motives to raise the athlete to the highest levels". (Al-Khikani, Amer Saeed & others,2016, p.65) [9].

Conclusions and recommendations

Conclusions

- Special exercises have an effective role in the development of the biomotor abilities under study significantly on the experimental group.
- The development of biomotor abilities has a significant impact on the development of the indicator of accuracy of serving and spiking of volleyball players.
- The special exercises contributed to the promotion and development of the motor program, as well as saving time for the coach and the player in developing the biomotor abilities under study well.
- The special exercises have a positive impact on the commitment of the players, their attendance at the training units, the interaction between them, and the desire to repeat a greater number of training duties.

Recommendations

- It is preferable to develop the indicator of the accuracy of serving and spiking, to develop the biomotor abilities of the volleyball players.
- It is preferable to develop biomotor abilities in volleyball to design training programs that are determined in light of the abilities of the players and higher in order to ensure remarkable development.
- It is preferable to use special exercises during the training process to ensure a variety of environments for the player, at any period within the training plan periods, and in any part of the training unit.
- It is preferable that the training methods and methods are in line with the player's needs and his physical, motor, psychological and mental abilities that the coach resorts to.

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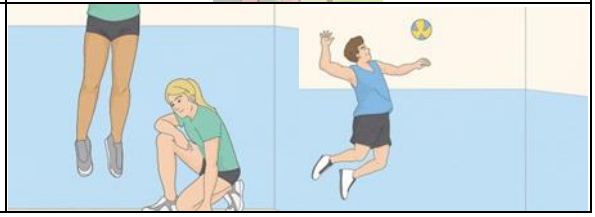
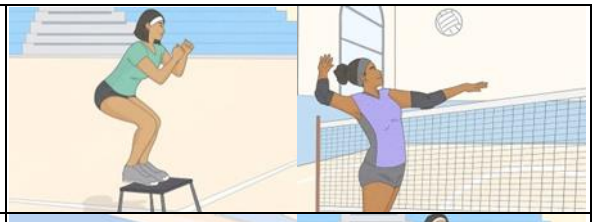
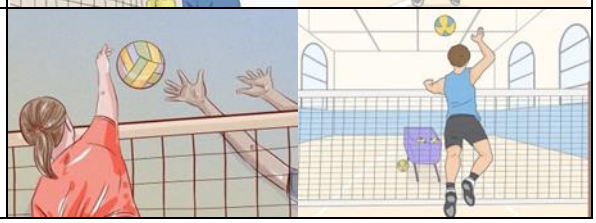
Appendix 1

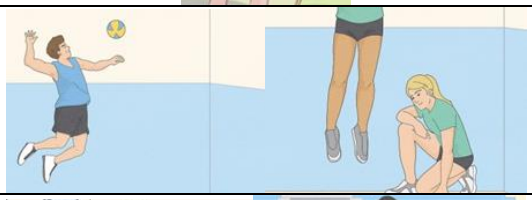
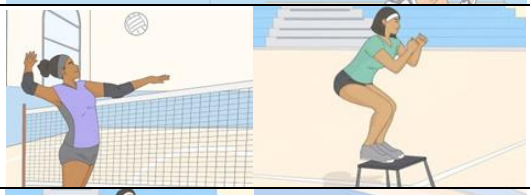
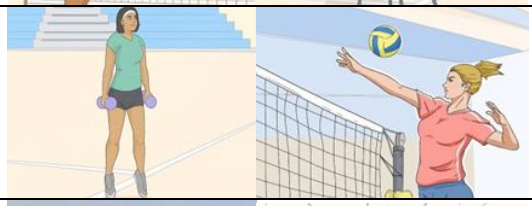
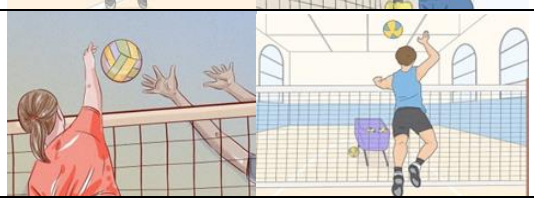
A set of special exercises

N	the exercise	its shape
1	Standing on the offensive line and trying to touch the ball to the net by playing a ball connected to the player's body	
2	Perform several jumps and then play the transmitter	

3	Falling off a ramp and jumping for a crushing hit	
4	Jumping in front and behind the line of attack, holding resistance with both hands, and then flying for a crushing blow	
5	Executing a crushing blow from the back line on a specific place, once with an opponent and once without an opponent	

Appendix 2
Sample training module

Training module: 1 Day and date: Sunday 15/5/2022
Number of players: 8 Intensity rate: 85%

N	The exercise	intensity %	time (s)	Repetition	Group	Rest between		Notes
						R	G	
1		80	30	4	2	30	75	
2		80	27	4	2	30	75	
3		85	27	3	2	40	75	
4		90	25	2	2	45	75	
5		90	25	2	2	45	75	