THE EFFECT OF THE TRAINING CURRICULUM ON DEVELOPING KINETIC AND TRANSITIONAL RESPONSE SPEED, ACCURACY OF THE STOPPING WALL PERFORMANCE, AND DEFENDING THE STADIUM IN VOLLEYBALL

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ABSTRACT

The research aims to equip a training curriculum to develop the motor response speed, transition speed, and accuracy of the performance of the skills of the wall defense of the stadium in volleyball, in addition to identifying the effect of the proposed training approach in developing the variables under research. The researchers have assumed that there are statistically significant differences between the results of tribal and dimensional tests in the development of kinetic response speed, transition speed, and accuracy of the stopping wall defense and defending field skills in favor of distance tests, as well as having statistically significant differences between the results of dimensional tests for the two research groups, developing the variables under investigation. The researchers used the experimental method using the two groups. Then, the research community (Balad Club) was identified as a volleyball for the 2019/2020 sports season. In light of these results, the researchers reached the following conclusions:

- There were statistically significant differences between the results of the pre and post tests in developing the motor response speed and the transition speed and the accuracy of the performance of the blocking wall skills and defending the field in volleyball and in favor of the dimensional tests.

- There were statistically significant differences between the results of the two dimensional tests of the two research groups in developing the kinetic response speed and the transitional speed and the accuracy of the skills of the blocking wall and defending the field in volleyball.

Keywords: training curriculum, kinetic and transitional response, defending the stadium, volleyball

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INTRODUCTION

Volleyball is a sports game that ranks well among other teams because it is a game characterized by suspense and excitement during games, and it contains defensive and offensive skills that players must learn and
master well. And that the training of teams in this game does not differ from any other game through following or using modern scientific methods and methods in achieving adaptation and raising the level of physical capabilities of players and indicates \(^{(1)}\) that sport training is a targeted and targeted educational process of Scientific planning to prepare players at all levels and according to their abilities, physically, skillfully, technically, schematically and psychologically to reach the highest possible level. "This is consistent with the opinion of \(^{(2)}\) that they are considered qualities acquired from the environment and training or practice is the basis for it and that it develops according to the ability of the individual Physical, sensory and cognitive. Often times they called the agility an "adjective of kinetic characteristics", but it varies from game to game according to the requirements and nature of its performance.

Physical abilities are an important and necessary requirement for volleyball players. Any weakness in the level of these attributes will affect the level of neglect in the level of motor skill performance. The interest in developing fitness elements is the means used to influence the physical and skill levels of the players, as many specialists agreed that fitness is the cornerstone of all sports, and this is consistent with the opinion \(^{(3)}\). The structure of the training program in terms of size, intensity, comfort, and intensity used also reflects the effectiveness resulting from the motor stimuli on the physical and psychological functions, because of its very significant impact on the level of athletic achievement in order to reach the best level. Maintaining the level of performance is considered the means that is used to influence the physical and skill levels of the players by preparing training curricula codified in a scientifically studied manner and this is confirmed by \(^{(4)}\) saying, "The many iterations practiced by the player during the practical application help to gain Performance and its development." The endeavor to achieve good results requires the trainers to follow the training methods that depend on preparing them on the important scientific aspects, and this is what he mentioned \(^{(5)}\), saying that "good training tends to develop the most important physical characteristics and motor skills using in That exercises that lead to competition and in which the speed of skill performance has an important role at this stage, which leads to the player's acquisition of motor performance automatically.

The game of volleyball is characterized by having a very close link between physical and skill preparation, which in its performance requires a set of basic skills such as (wall of defense and defending the stadium). And the blocking skill is the first defensive skill in volleyball that the team begins with. It is one of the basic skills of an offensive and defensive individual and joint character, which is characterized by a diversified performance and a change between offensive and defensive skills during performance and according to the situation and this is confirmed " Mastering the proper movements during attack and defense is the basis on which the game of volleyball is based. What the player must possess the kinetic capabilities and physical characteristics of the game he plays makes his performance of various skills during the game time with high efficiency.". And that the correct performance of the wall and defense skills of the stadium enables him to score a quick and direct point on the sending team, and mastering the technical and planning performance of defensive and offensive skills means a lot of the team's strategic performances if the player can direct the ball to the right place will get many points for his team as well as an impact Defending the stadium in building a correct attack for the team and the arrival of the ball to the well-equipped and ideally equipped player, Therefore, it became necessary to pay attention to the elements of physical fitness and the motor characteristics that affect the success of its performance. This is in line with the opinion saying that "the
player cannot master the basic skills of the type of specialized activity when he lacks special physical capabilities. "Through the researchers' follow-up to most volleyball matches, they noticed a weakness in some of the kinetic characteristics of most players and the lack of adequate interest in them from some coaches, which negatively affected their performance during playing, knowing that it is one of the basic requirements of the volleyball player, which prompted the researchers to enter into this problem And find a solution to it by preparing a training curriculum in developing the speed of the kinetic and transitional response and the accuracy of the wall's performance and defending the stadium in volleyball, a contribution from researchers with the help of some coaches to advance the level of the game.

Accordingly, the importance of the research appears in an attempt to raise the level of physical and skill performance of volleyball players. And that is through studying the preparation of a training approach in developing the speed of movement and transitional response and the accuracy of the performance of the blocking wall and defending the volleyball field and putting that study in the hands of coaches and players in order to develop those capabilities That contribute to the development of performance and thus the level of the game. The research aims to:

- Preparing a suggested training curriculum in developing the speed of kinetic and transitional response, the accuracy of the wall's performance, and the defense of the volleyball field.

- Knowing the effect of the proposed training curriculum on developing kinetic and transitional response speed, accuracy of the fence wall performance, and defending the stadium in volleyball.

**MATERIAL AND METHODS**

**Research Methodology:**

The researchers used the experimental method using the two groups' equivalence method, as it is suitable to solve the research problem.

**Research community and its sample:**

The research community of the Balad Sports Club was identified for those applying volleyball for the 2019-2020 sports season, with a total of (16) players who were chosen intentionally, and (4) players were excluded for their participation in the exploratory experience, thus the research sample reached (12) players representing The control and experimental group, where the sample was randomly divided into two equal groups, by (6) for the control group and (6) for the experimental group, and thus the percentage of the research sample is (75%).

- The researchers found the homogeneity and equivalence of the sample by using (t-test) in the variables under investigation, as shown in Table (1).
Table 1: The arithmetic mean, the standard deviations, the calculated value of (T), the degree of freedom, and the significance of the tribal tests of the research sample.

<table>
<thead>
<tr>
<th>Significance</th>
<th>mistake percentage</th>
<th>T( Calculated</th>
<th>Experiments</th>
<th>Control</th>
<th>unit</th>
<th>Measurements And tests</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not significant</td>
<td>0.631</td>
<td>0.688</td>
<td>11.29</td>
<td>169.4</td>
<td>4</td>
<td>cm</td>
<td>1</td>
</tr>
<tr>
<td>Not significant</td>
<td>0.617</td>
<td>1.174</td>
<td>6.239</td>
<td>61.37</td>
<td>5.947</td>
<td>Kg</td>
<td>2</td>
</tr>
<tr>
<td>Not significant</td>
<td>0.742</td>
<td>0.105</td>
<td>1.95</td>
<td>21.57</td>
<td>11.29</td>
<td>Kg</td>
<td>3</td>
</tr>
<tr>
<td>Not significant</td>
<td>0.816</td>
<td>0.47</td>
<td>0.06</td>
<td>1.81</td>
<td>0.105</td>
<td>Kg</td>
<td>4</td>
</tr>
<tr>
<td>Not significant</td>
<td>0.394</td>
<td>0.359</td>
<td>0.542</td>
<td>5.120</td>
<td>0.564</td>
<td>Kg</td>
<td>5</td>
</tr>
<tr>
<td>Not significant</td>
<td>0.554</td>
<td>0.854</td>
<td>0.27</td>
<td>3.61</td>
<td>0.547</td>
<td>Kg</td>
<td>6</td>
</tr>
<tr>
<td>Not significant</td>
<td>0.235</td>
<td>0.125</td>
<td>4.854</td>
<td>26.40</td>
<td>1.618</td>
<td>Kg</td>
<td>7</td>
</tr>
</tbody>
</table>

**Research tools:** - Arab and foreign sources - Form for recording and emptying data - A device for measuring weight and length - Volleyball Stadium - Tape Measure - Tests and Measurement - Stopwatch - Sofa - Whistle - Office tools.

**Tests used in the research:**

Kinetic Response Speed Test (6).

Transition speed test.

Traumatic Wall Skill Test.

- The test of the defense skill of the stadium (7)

**Exploratory experience:**

The pilot study was conducted on a sample of 4 players. On (4-5 / 9/2019) and that its purpose is to identify the best and most appropriate test.
Field research procedures:

Pre-test:

Tribal tests of the research sample were conducted on (7-8 / 9/2019) on the research sample.

Training curriculum:

The researchers prepared a proposed training curriculum for the special application stage as shown in Appendix (1), which aimed to develop the speed of kinetic and transitional response, the accuracy of the performance of the blocking wall, and the defense of the volleyball field. And the training period was determined (8) weeks at a rate of (3) training units per week, and the total of training units reached (24) training units starting from Monday (9/9/2019) and continued until (4/11/2019) in (BALAD CLUB), knowing that the training unit time reached (90-95) minutes and exactly at two in the afternoon. Where the experimental group used the proposed training method, and the control group used the method followed by the club coach.

Dimensional tests:

Dimensional tests were carried out to search the individuals of the sample. Conditions related to the tests, such as place and time, and the way to carry out the tests were established for the purpose of achieving the same or as close to the conditions as possible during the conduct of the tribal tests. On 6-7 / 11/2019.

Statistical means

The statistical system (SPSS) was used to extract the results. Percentage - arithmetic mean - standard deviation - law (t) for symmetrical samples - law (t) for asymmetric samples.

Presenting, analyzing and discussing the results:

Display the results of the pre and post tests of the control group in the variables under investigation (Table 2).

Table 2: The mean and standard deviations of the control group for pre and post tests

<table>
<thead>
<tr>
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<th>+P</th>
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<th>+P</th>
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<tbody>
<tr>
<td>Not significant</td>
<td>0.447</td>
<td>8.21</td>
<td>0.08</td>
<td>1.80</td>
<td>0.04</td>
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<tr>
<td>moral</td>
<td>0.023</td>
<td>2.261</td>
<td>0.41</td>
<td>4.514</td>
<td>0.56</td>
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<tr>
<td>moral</td>
<td>0.014</td>
<td>6.841</td>
<td>0.39</td>
<td>4.20</td>
<td>0.54</td>
</tr>
<tr>
<td>moral</td>
<td>0.048</td>
<td>6.278</td>
<td>6.10</td>
<td>27.70</td>
<td>1.61</td>
</tr>
</tbody>
</table>
Present the results of the pre and post tests of the experimental group in the variables under discussion (Table 3).

Table 3: Shows the mean and standard deviations for the experimental group for pre and post tests

<table>
<thead>
<tr>
<th>mistake %</th>
<th>mistake %</th>
<th>Remote tests</th>
<th>Tribal tests</th>
<th>unit</th>
<th>Measurements And tests</th>
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<td></td>
<td></td>
<td></td>
<td>Kinetic response speed</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Transition speed</td>
<td>5</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wall blocking</td>
<td>6</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Defend the stadium</td>
<td>7</td>
</tr>
</tbody>
</table>

Display the results of the two dimensional tests for the control and experimental groups

Table 4: The mean and standard deviations for the two-dimensional tests of the control and experimental groups

<table>
<thead>
<tr>
<th>Significance</th>
<th>mistake percentage</th>
<th>Experimental</th>
<th>Control</th>
<th>measuring unit</th>
<th>Measurements And tests</th>
<th>T</th>
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<td></td>
<td>Kinetic response speed</td>
<td>4</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Transition speed</td>
<td>5</td>
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<td></td>
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<td></td>
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<td></td>
<td>Wall blocking</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Defend the stadium</td>
<td>7</td>
</tr>
</tbody>
</table>

Discussing the results of the dimensional tests of the control and experimental research groups for the variables under discussion in volleyball:

Through what was presented in Table (4) of the results of the tests and the control and experimental research groups, which showed the existence of significant differences in the dimensional tests and in favor of the experimental group in the tests of kinetic response speed and transitional speed and the accuracy of the
performance of the blocking wall and defending the volleyball field and their development in all search variables.

The researchers attribute the reason for this to the nature of the vocabulary of the training curriculum, including skill and physical exercises, and the content of it that includes repetitions and various exercises that had a clear role in the development of the players. This is consistent with the opinion of (8), saying, "The use of qualitative exercises for kinetic response and skillful performance in volleyball led to the elimination of the state of boredom among players and pushed them seriously towards better performance." The researchers were keen to use various exercises similar to performance. Which led to the development of the players of the experimental group and this is consistent with the opinion of (9), saying that "the use of similar exercises for skillful performance contributes greatly to improving the performance of motor skills in matches." This is consistent with the opinion of (10), saying that “diversity in athletic performance is one of the basic factors for the balance process in physical integration, and it works to increase the desire for training” and this was confirmed by (4). However, “the many iterations that the player exercises during practical application help to gain performance and develop it.” In addition, the regularity of the players with the training units allocated to them, and this was confirmed by (14) saying "If the response time is shortened, the player can act in a timely manner, especially in defense skills that need a fast kinetic response towards different stimuli." (Attackers, Ball) according to different playing positions. "In line with the privacy of volleyball game in terms of focusing on the speed of performance, which has a major role in raising the level of players physically and skillfully, and this was confirmed by (11), saying that "choosing the appropriate exercises that relate to the physical capabilities of the activity helps To reach the activity practiced to the highest possible level of performance "as special exercises were given and the players were trained in conditions close to what happens during the match with appropriate time and repetitions, with giving times of rest commensurate with the working times. This is confirmed by (5), saying that "good training tends to develop the most important physical traits and motor skills, using exercises that lead to competition and in which the speed of skill performance has an important role at this stage which leads to The player's acquisition of kinetic performance in an automatic way, "and this is consistent with the opinion of (12)" The performance of the exercises is characterized by rapid and new reactions, which are among the most effective means of influencing the development of each of the variables related to the type of activity practiced. "In addition to the method of graduation in the training load and training of the players on the speed of timely behavior, he contributed to the development of the players of the research sample, and this was confirmed by (13) Saying, "The distribution of the training load and its graduation to suit the level of the sample members as well as Exercises that took place from the time of the training units due to their effective influence in raising the individual's competence in other characteristics, especially speed, strength and agility."

CONCLUSION

1. The emergence of significant differences in the results of the pre and post test tests of the experimental group in all physical, motor and skill abilities and in favor of the post test.
2. No significant differences emerged between the results of the pre and post tests of the control group in the motor response velocity test.

3. Significant differences emerged in the results of the post-test tests for the control and experimental groups, and for the experimental group.

**RECOMMENDATIONS**

1- Emphasizing the adoption of a training curriculum equipped by researchers to develop some physical and skill capabilities for volleyball players.

2- Emphasizing the necessity of paying attention to the principle of gradualism in raising training loads in a manner that is commensurate with the level of players and their physical and skill capabilities to achieve better results.

3- The necessity of conducting similar studies and research to prepare curricula that develop the physical capabilities to achieve better results and physical capabilities and basic skills and other age groups in volleyball.

**ETHICAL CLEARANCE**

The Research Ethical Committee at scientific research by ethical approval of both environmental and health and higher education and scientific research ministries in Iraq

**CONFLICT OF INTEREST**

The authors declare that they have no conflict of interest.

**FUNDING:** Self-funding

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