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The Effect of Auxiliary Tools in Developing Locomotors Cohesion and Learning the Spike Skill of Volleyball for Students

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Abstract--- *The use of aids is a basis for progress in the level of performance by arriving at the most accurate knowledge in the performance of any skill in volleyball. As for the research problem, it may not use appropriate and appropriate aids for the abilities and capabilities of the learners, which leads to their feeling of boredom, boredom, and the lack of effective participation in the special exercises for skills. The aim of the research is to design a motor link test and a technical performance test for the spike hitting skill of volleyball for students. The two researchers followed the experimental approach in designing the two equivalent groups for the research sample of (30) students from the second stage students in the College of Physical Education and Sports Sciences - University of Kufa for the academic year (2018-2019). A sample of the second stage students numbered (15) students, and after conducting the pre-test, the experimental group followed the units by auxiliary means, within a period of (10) weeks with two educational units per week, and thus the number of the total units reached (20) units per unit time of learning (90) minutes, the researcher interfered with the priest The main educational unit, which was his time (60 minutes), and after the completion of the implementation of vocabulary, tests were conducted on the two sets of meta-search control and experimental. The two researchers reached the conclusions designing tests for kinematic correlation and testing the technical performance of the spike hitting skill of volleyball for students, and the two researchers recommended emphasizing the introduction of new aids in educational units to develop the technical performance of the spike hitting skill of volleyball for students.*

Keywords--- *Motor, Learning and Spike.*

I. INTRODUCTION

Our contemporary world is witnessing a series of continuous developments in all fields, including the sports field, and we often find new developments that appear from time to time, all of which focus on serving the educational process and achieving the goal of it is to bring about change and improvement in the level of the learner. Physical education and sports science is an important field of education and learning, as it prepares the learner with physical, skilled, and emotional preparation. And the introduction of various aids to help the learner to reach the most accurate knowledge in the performance of any skill in volleyball, and that the use of such methods and auxiliary means does not disrupt or reduce the role of the teacher in the educational process, but rather works to create a state of interaction and motivation and encourage the learner to learn Training and application of the new thing that differs from the method used in the educational process. As for kinetic bonding, the components are related to one another and have a great relationship with each other, as it gives movement or skill an integrated and

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aesthetic aspect of performance, in addition to that it works as a means to acquire and improve various motor skills. Volleyball is one of the group games that make the learner excitement, excitement and motivation while learning their basic skills, which is an important base for progress in the level of performance, as the stage of learning basic skills is one of the most difficult stages but at the same time it is necessary to acquire and develop technical performance. The skill of spike hitting is one of the most important offensive skills that have a direct and effective impact in achieving victory and the superiority of one team over another, in addition to being one of the critical skills that express the final result.[1]

The importance of the research lies in introducing assistive methods during the educational units of volleyball material that contribute to the development of kinematic correlation and learning the spike knocking skill of volleyball in a way that may help the learner to interact positively with the learning environment of skill and respond to its own requirements.[2]Through the work of the two researchers, their follow-up, and their observations of the educational units of volleyball as a course for students of colleges of physical education and sports science the second stage and they found weakness in learning the skill of spike hitting with volleyball, the researchers urged the use of assistive methods consistent with the capabilities, desires and inclinations of learners towards the skill of spike with volleyball and this It reflects positively on both the teacher and the learner.

Research Objective

- Design the kinetic bonding and technical performance of spike volleyball in students.

Research Hypotheses

- Assistive auxiliary tools have a positive effect in developing motor cohesion and learning the spike skill of volleyball for students.

II. RESEARCH PROCEDURES

Research Methodology

The two researchers followed the experimental method by designing the two pre-test and equivalent groups.

Research samples

First: The Exploratory Sample: The two researchers randomly selected the sample from the students of the College of Physical Education and Sports Science - University of Babylon, who are (131) with a number of (15 students).

Second: Design Sample: To design the kinetic correlation test in volleyball, the two researchers chose the sample randomly from the total community of (131) students from the Faculty of Physical Education and Sports Science - University of Babylon and the number (15) students.

Third: The main sample: The two researchers chose the sample from the total community students who are (131) students from the College of Physical Education and Sports Science - University of Kufa and the number of (30) students, by (15) students for the experimental group and (15) students for the control group.

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Equivalence of the two research groups

The two researchers sought to verify the equivalence of the two research groups (experimental and control).

Table 1

S	Tests	Units	Experimental group		Control group		(t) value	Type of indication
			Mean	SD	Mean	SD		
1	Motor bonding	Degree	15.05	0.82	14.86	0.79	0.79	No sig.
2	Spike technical performance	Degree	4.32	0.61	4.17	0.56	0.94	No sig.
3	The precision is spike	Degree	4.85	0.58	4.72	0.51	0.87	No sig.
*Table of value of t: (2.08) at the significance level of 0.05) and degree of freedom (28)								

Used Tools and Devices

- Colored adhesive paper measuring (30 x 30 cm), count (7).
- Plastic blocker designed by the two researchers, number (5), height (60 cm) and width (30) cm.
- Plastic blocker designed by the two researchers, number (5), height (20 cm) and width (20 cm).
- Colored numbers of sticky paper numbered by the students, measuring (30 x 20 cm), number (30).
- Large plastic tags, number (5).
- Small plastic tags (7).
- Casio electronic stopwatch (1).
- Colorful adhesive tapes.
- Sony camera (2).

Kinetic Correlation test Design

The two researchers designed the (kinematic correlation) test, a special questionnaire was prepared and presented to a group of experts and specialists, and the results that approved the agreement for the masters and experts using the (Chi square) test were matched to the acceptability of the kinematic correlation test.[3]

Table 2: Results of Calculated (Chi square) Values and the Type of Significance for the Kinetic Correlation Test

Test	Capacity number	Agree	Disagree	(Chi square) value	Type of indication
Motor bonding	5	7	0	7	Sig.

The results of Table (2) show that the calculated value of (Chi square) amounting to (7) is greater than its tabular value of (3.84) at the level of significance (0.05), and under a degree of freedom (1), resulting in acceptance of the test.

Design a Technical Performance Test for Crushing Hitting Skill and Precision in Volleyball

The two researchers designed the test (spike multiplication) and the two researchers relied on the apparent structure of the skill which is (the preparatory section, the main section, the final section) and a standardized test for accuracy was chosen. A special questionnaire was prepared and presented to a group of experts and specialists.[4] The results of the test were extracted using a good-matched (Chi square) test to accept the tests.

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Table 3: Calculated Results of (Chi square) and the Type of Indication for the Technical Performance test of Crushing Hitting Skill and Accuracy in Volleyball

S	Test	Skills number	Agree	Disagree	(Chi square) value	Type of indication
1	Technical performance hit the spike	1	7	0	7	Sig.
2	The precision is spike	1	7	0	7	Sig.

The results show that the calculated value of (Chi square) amounting to (7) is greater than its tabular value of (3.84) at the level of significance (0.05) and below the degree of freedom (1), to result in acceptance of the test.

Pilot Study

The two researchers conducted an pilot study to test the kinetic correlation and the technical performance of spike beating and accuracy on a sample of (15) students who were randomly chosen from the second year students in the College of Physical Education and Sports Science - University of Babylon (Sunday 12/30/2018) (10:30 am) In the gymnasium of the Faculty of Physical Education and Sports Science - University of Babylon.

III. FIELD RESEARCH PROCEDURES

Pre Tests

Pre tests were conducted to test the kinematic correlation of the research sample (control and experimental), whose number is (30) students, (15) students per group (Sunday 24/2/2019 10: 30,9: 00) and the technical performance test for crushing hitting and accuracy with the ball The plane of the research sample (control and experimental) (Tuesday 2/26/19-12: 30,10: 30) in the hall of the College of Physical Education and Sports Science - University of Kufa.

Implementing Vocabulary with Auxiliary Tools

Starting the application of the vocabulary of educational units by auxiliary means (Sunday 5/3/2019 until 12/5/2019) daily (Sunday and Tuesday) every week according to the schedule prepared by the College of Physical Education and Sports Science - University of Kufa.

Post-test

The post tests were conducted to test the kinematic correlation of the research sample (control and experimental) (Tuesday 14/5/2019 - 10: 30,9: 00) and the technical performance test for crushing and precision volleyball (Thursday 16/5 / 2019-11: 30)., 10:00) In the hall of the College of Physical Education and Sports Science - University of Kufa.

Table 4: Shows Pre- and Post-tests of Kinematic, Crushing, and Precision Volleyball (Experimental Group)

S	Tests	Units	Pretest		Posttest		(t) value*	Type of indication
			Mean	SD	Mean	SD		
1	Motor bonding	Degree	15.05	0.82	24.16	1.58	8.82	Sig.
2	Spike technical performance	Degree	4.32	0.61	9.54	0.57	9.22	Sig.
3	The precision is spike	Degree	4.85	0.58	9.51	0.60	8.26	Sig.
*Table (t) value = (2.14) at the significance level (0.05) at the degree of freedom (14).								

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Table 5: Shows Pre- and Post-tests of Kinematic, Crushing, and Precision Volleyball (Control Group)

S	Tests	Units	Pretest		Posttest		(t) value*	Type of indication
			Mean	SD	Mean	SD		
1	Motor bonding	Degree	14.86	0.79	17.64	1.96	4.30	Sig.
2	Spike technical performance	Degree	4.17	0.56	6.09	0.59	4.90	Sig.
3	The precision is spike	Degree	4.72	0.51	6.49	0.56	5.42	Sig.
*Table (t) value = (2.14) at the significance level (0.05) at the degree of freedom (14).								

Table 6: Shows the Post Tests of Kinematic Correlation, Crushing Knocking, and Accuracy in Volleyball between the Two Research Groups (Experimental and Control)

S	Tests	Units	Experimental group		Control group		(t) value*	Type of indication
			Mean	SD	Mean	SD		
1	Motor bonding	Degree	24.16	1.58	17.64	1.96	13.59	Sig.
2	Spike technical performance	Degree	9.54	0.57	6.09	0.59	12.57	Sig.
3	The precision is spike	Degree	9.51	0.60	6.49	0.56	18.88	Sig.
*Table of value of t: (2.08) at the significance level of 0.05) and degree of freedom (28)								

Table 7: Shows the Development (Coefficient of Variation) for the Post Tests for Kinetic Correlation, Crushing Knocking Skill, and Volleyball Accuracy between the Two Research Groups (Experimental and Control)

Tests	Units	Experimental group			Control group		
		Mean	SD	Error%	Mean	SD	Error%
Motor bonding	Degree	24.16	1.58	6.54%	17.64	1.96	11.12%
Spike technical performance	Degree	9.54	0.57	5.98%	6.09	0.59	9.69%
The precision is spike	Degree	9.51	0.60	6.31%	6.49	0.56	8.63%

During the presentation of the tables, there were significant differences between the pre and posttests of the experimental and control research groups, in the kinetic correlation and the skill of spike and accuracy of volleyball in favor of the experimental group has achieved its goal in learning as well as having good percentages.

And that the auxiliary means helped the learner to develop his motor and skill capabilities and the two researchers see that diversity and repetition play an effective role in learning and gives the learner progression,[5] mastery and acquisition by repeating the number of attempts a great importance in the game of volleyball, as the development of motor capabilities (kinetic compatibility between the eye and the legs and between The eye, arms, flexibility, agility, balance, and motor linkage) have a great role in developing the technical performance and accuracy of the spike hitting skill, and this is what was agreed with,[6] as he indicated that educational units are complemented by means that assist in the education process. The researchers also attribute the differences and development to the experimental group. The approach used in the educational units and the progression by learning from easy to difficult, because graduation with learning helps to learn faster.[7] Therefore, the gradient has a positive impact on the speed of learning for motor skills and improving the performance of better technique.[8]

The researchers also attribute the differences in the post tests and the superiority of the experimental group to the auxiliary means as it contributed to address more than one sense as it has an effective role in stimulating the educational process,[9]and that its use during educational units is a motivation and incentive for learners as hooves are among the important factors that facilitate from Learning motor skills and developing their performance, and that the motivation works to direct behavior towards effectiveness and has a great role in delaying fatigue and increasing the attention of the learner and increasing accuracy.[10]

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IV. CONCLUSIONS

1. The design of the kinetic correlation test and the technical performance (spike) in volleyball for students.
2. Auxiliary aids have a positive effect on learning the skill of spike hitting and precision volleyball for students.
3. The experimental group in the post tests exceeded the control group.

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