



THE EFFECT OF SCHEDULING THE RANDOM VARIABLE AND RANDOM FIXED EXERCISE IN LEARNING THE ART OF SKILLFUL PERFORMANCE OF THE TWO SKILLS OF SERVING AND CRUSHING THE VOLLEYBALL

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Abstract

The aim of the research is to identify the effect of scheduling the random variable and random fixed exercise in learning the art of skillful performance for the two skills of serving and crushing hitting with volleyball. Sports at the University of Kirkuk for the academic year (2022-2023) for the morning study, the number of which is (87) students distributed into two divisions (A) with (43) students and division (B) with (44) students, where (10) students were selected from each division in a way Empire for the main research sample (20) students distributed in two groups (10) students of the first experimental group and (10) students for the second experimental group of the Entrepreneurial research community, and (20) students were seen from the research Aina and were excluded from the main sample And in order to adjust the sample specifications, a process of homogeneity and equivalence was conducted between the two experimental research groups in the skills of serving crushing, then applying the main experiment that included educational units, then conducting post-tests, and after collecting the data, the appropriate statistical operations for the tests were conducted in order to reach the results, the researchers concluded that the implementation of the Random variable and random fixed exercise had an impact on learning the skills of serving and crushing for the students of the second stage, and it clearly contributed to learning the art of skillful performance for the student.

Introduction

The attention of developing methods in presenting information and designing appropriate methods for using modern applications that suit the learning and teaching processes, including educational methods for the abilities and capabilities of the learner's abilities that would reduce individual differences among learners to bring them to a higher degree of Control and adequacy that suits different learning situations, and the educational units are distinguished with the presence of exercises, the amount of learning and the development and mastery of performance depend primarily on the impact of those exercises. And its practice in terms of the type of exercise, its sequence, repetition and implementation, and among the methods of exercise used within the educational units is the style of variable exercise and fixed random exercise, which is a type of exercise scheduling method, is a method in which the skill is repeated over a distance and in one direction in one direction, and it is a series of similar exercises. Training courses in which the learner is subject to only one variable out of the total number of variables during one practice, or the variable exercise is the variety in the change in a system It is

practiced on a large number of variables on a number of elements that affects one skill. As for sequential and random exercise, it is one of the methods of scheduling training. Practice, as the method of sequential exercise is the application of skills sequentially one after the other, while the method of random exercise is done through several different skills within one educational unit, and many studies and research confirmed that the use of the variable and random fixed method has great effectiveness in learning aspects of basic skills and various knowledge, and this is what prompted the researcher to use the variable and random fixed method in learning the art of skillful performance of the skill of crushing hitting with volleyball.

Research Importance: through the researcher's use of an overlapping exercise method between two methods of exercise scheduling, which is the variable and random fixed exercise method, and its impact on learning the art of skillful performance of the two skills of serving and hitting the crushing volleyball.

Research problem: Exercise is of great importance in preparing the individual physically, skillfully and mentally in various sports and in a manner appropriate to the age group for these games. Learning is only through these exercises that lead to improving and developing the skill and increasing the appropriate links between the stimulus and the response, and through field observations. The researcher of the practical lessons in the College of Physical Education and Sports Sciences for the subject of volleyball for the second stage in the morning study noticed that there is a clear weakness among most of the students, especially in the application and implementation of the performance of the two skills of serving and crushing hitting with volleyball, which depends on breathing. It has high skill capabilities, it may need a certain method in teaching and applying it to the learners to reach the desired goal, and this study comes to experiment with a new educational method that may help to improve and develop the technical skill performance of students better than the rest of the methods, and it is a new attempt by the researcher by using exercise scheduling in the random variable and random fixed method in learning skill performance For my skill in serving and crushing volleyball under discussion.

Research objective: To identify the effect of using the variable random method and the fixed random method in learning the art of skillful performance for the two skills of serving and crushing hitting with volleyball, and to identify the significant differences of the variable random method and the Fixed random method in learning the art of skillful performance for the two skills of serving and crushing hitting volleyball between the pre and post tests .

Research hypotheses: There are significant differences between the pre and post tests in the effect of using the variable random method and the fixed random method in learning the art of performing the skills of serving and crushing skills in volleyball for second stage students. There are significant differences between the two experimental groups of the post tests in the effect of using the variable random method and the fixed random method in learning the art of performing the skills of serving and crushing skills in volleyball for second stage students.

Research fields: (the human field) students of the second stage of the morning study for the academic year 2022-2023, (the spatial field) the closed sports hall of the Directorate of Youth and Sports in Kirkuk, (the temporal field) for the period from 11/3/2022 to 7/6/2023.

Research Methodology: The researchers used the experimental approach for its suitability and the nature of the research.

Research community and sample: Through this, the research community was identified from

and the diagonal direction.

Equipment used: legal volleyball court, legal volleyball, legal height net, table, stopwatch, whistle.

Performance description: Striking from center (4), preparation is done by the trainer from center (3), and the tester has to perform (15) crushing blows towards the diagonal direction, i.e. the rank in the center (5), and perform (15) Other crushing blows towards the straight direction. located in the center (1).

Scoring: (4) points for each smash in which the ball lands on the rank, (3) points for each smash in which the ball falls in the planned area, 2 points for each correct smash in which the ball falls in areas (a) and (b), zero when performing a performance It contradicts all of the above.

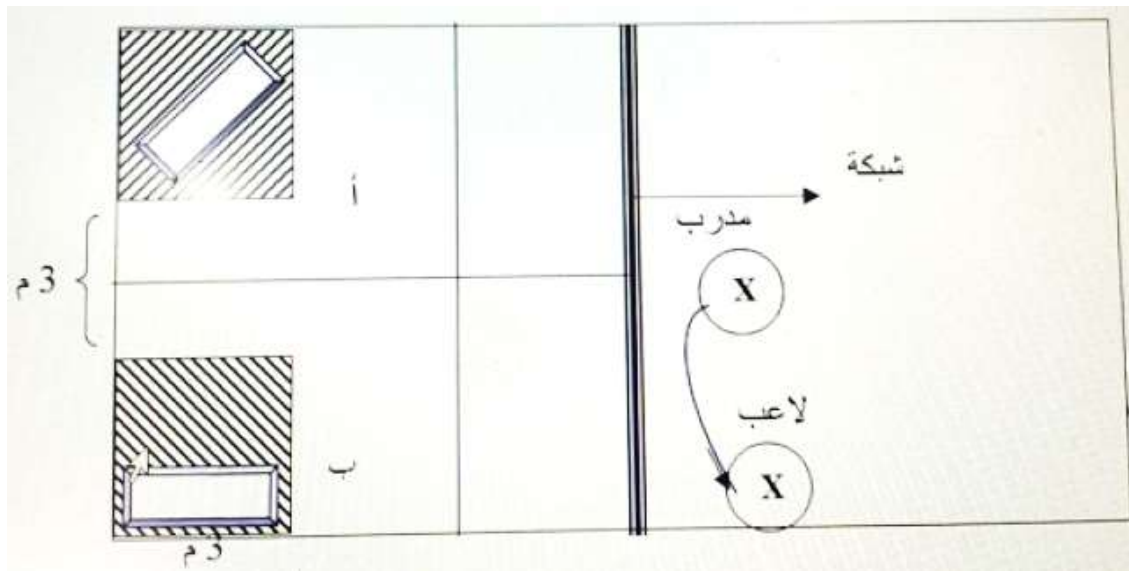


Figure 2 shows the crushing multiplication test

The researchers conducted the exploratory experiment on a sample consisting of (20) students from outside the research sample in the tests used for the skills of serving and crushing, which were developed for it, and they are suitable for the research sample. Table (1) and equivalence were extracted .

Table (1) shows the homogeneity of the two experimental groups in terms of (age, height, and mass).

torsion modulus	indication	T calculated	standard deviation	Arithmetic mean	Measurement units	groups Experimental	variants	No
0,372	0,065	1,964-	0.971	21.5	year	The first	chronological age	1
			1,074	22.4		the second		

0,028-	0,852	0.189 - -	3,457	184.2	poison	The first	total length	2
			3,628	184.5		the second		
0,278	0,293	1,084-	3,665	83.9	kg	The first	Bloc	3
			3,339	85.6		the second		

Table (2) shows the equivalence of the two experimental groups in a test skill
 Respondent

Moral	indicatio n	calculated t	standar d deviatio n	Arithmeti c mean	the two experimenta l groups	skills
non- moral	0.654	0.456	5,152	16,667	The first	preparator y
			5,096	15,622	the second	
non- moral	0.759	0.312-	3,239	15,000	The first	the main
			3,455	15,467	the second	
non- moral	0.450	0.772-	2,383	12,667	The first	closing
			2,054	13,434	the second	

Main experience:

Preparing a technical performance evaluation form for skills:

The two researchers prepared a form for evaluating the technical performance after presenting it to a group of experts and specialists to find out the validity of the form in accordance with the nature of the study so that the form in the final form is in the field of application. Parts (the preparatory part for performing the skill 30 marks), (the main part for performing the skill 50 marks), (the final part for performing the skill 20 marks) and the grades are distributed according to the importance of the movement parts for the two skills.

Technical Performance Evaluation:

After the preparation of the questionnaire, the two researchers conducted an evaluation of the technical performance of the two researched skills by videotaping with modern cameras, as the film was transferred to a disc (CD) after a practical procedure on it. Montage and presentation to (3) experts in the field of volleyball to evaluate the technical performance of the serving and hitting skills According to the forms prepared for this purpose, knowing that the filming process took place in the Youth and Sports Hall and by (3) photographers with expertise and specialization in the field of videography, as they were set up perpendicularly, the first to the right of the student for the skill movement, the second to the left of the student, and the third

In front of the student at an oblique angle .

Preparation of the tutorial:

The researchers prepared the vocabulary of the educational program for the two experimental groups within the special educational units in teaching the skills of serving and crushing hitting and the art of performing skill in volleyball by preparing an educational program for the first experimental group, which learns the skills of serving and crushing hitting and the art of performing skill in volleyball for a skill By scheduling the randomly variable exercise while it was done Preparing another educational program for the second experimental group for the same two skills using the fixed random exercise scheduling method, as shown in Table (3).

Table (3)

educational units	educationl programs	the group
two weeks educational units for 4	Random variable exercise scheduling	first experimental
educational units for two weeks 4	Fixed random exercise scheduling	second experimental

Through table (3), the researcher conducted (8) educational units for a period of (4) weeks for each of the two groups, at a rate of two sessions per week, and before starting the tests and the main experiment, the researcher conducted on 2/27/2023 corresponding to Monday and ended on 3/23/2023 on Thursday Where the time for one main educational unit was (90) minutes for each group, according to the curriculum prescribed by the Department of Theoretical Sciences in the College of Physical Education and Sports Sciences / the second stage of the morning study.

The two researchers conducted the post tests for the crushing and blocking skills of the two experimental groups on 27/2/2023 under the same conditions as the pre-test. As for the statistical treatments, the researchers used the statistical bag (SPSS).

Results:-

Table (4) Comparison between the pre and post test of the random variable exercise group in the transmission skill

Moral	indication	test -z	Rank average		skill parts
non-moral	0,143	1,466	3,75	negative	preparatory
			5,50	cation	
moral	0,014	2,448	2,50	negative	the main
			5,31	cation	
moral	_ 0.015	434 ,2	2,50	negative	closing
			5,31	cation	

Table (5) Comparison between the pre and post test of the random variable exercise group in

the skill of crushing multiplication

Moral	indication	test -z	Rank average		skill parts
moral	0,007	2,694	1,50	negative	preparatory
			5,94	cation	
moral	0,004	2,850	0,00	negative	the main
			5,5	cation	
moral	_ 0.014	460 ,2	0.00	negative	closing
			4	cation	

Table (6) Comparison between the pre and post test of the fixed random exercise group in the transmission skill

Moral	indication	test -z	Rank average		skill parts
moral	0,007	2,701	0.00	negative	preparatory
			5	cation	
moral	0,005	2,831	0,00	negative	the main
			5,50	cation	
moral	0.014	2,449	0.00	negative	closing
			3,50	cation	

Table (7) Comparison between the pre and post test of the fixed random exercise group in the skill of crushing multiplication

Moral	indication	test -z	Rank average		skill parts
moral	0,004	2,919-	0.00	negative	preparatory
			5,50	cation	
moral	0,004	2,844-	0.00	negative	the main
			5,50	cation	
moral	0,006	2,739-	0,00	negative	closing
			5	cation	

Table (8) Comparison between the variable random exercise group and the fixed random exercise group in the post tests

Moral	indicati on	(Z)	Man and Whitne y	Rank average	Schedule your workout	skill parts	skills
non-				12,20	Constant	preparatory	transmi

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moral	0,18	1,351	33	80 , 8	junk	the main	tter	
non-moral	0,32	1,137	36	11,90	Constant			
non-moral	0,25	1,446	34	9,10	junk	closing		
non-moral	0,25	1,446	34	12,10	Constant			
moral	0,00	3,644	4,5	5,95	Constant	preparatory		Smash hit
moral	0,00	3,731	1,5	15,05	junk			
moral	0,00	3,731	1,5	5,65	Constant	the main		
moral	0,01	2,936	15	15,35	junk			
moral	0,01	2,936	15	7,00	Constant	closing		
moral	0,01	2,936	15	14,00	junk			

Discussion

By observing the results of the tables, we find that the differences were non-significant between the pre and post test of the group that used the variable random exercise scheduling in the preparatory part in the transmission skill. The appropriate body and the internal control of the player before performing the movement and entering the main part, and that the surrounding conditions are constant and unchanging, and the opponent has a weak effect, so the development in this part was not significant, and this was confirmed by (Sayed, 2016, 59) in his reference to it as “the constant exercise It is suitable for closed skills that require a fixed motor program in order to implement in a way that approaches the correct performance model. As for the two parts (main and final), we find that the differences were significant in favor of the post-test in the skill of the transmission, which explains the effect of the changing exercise on performance. between the eye and the two legs, and this is what (Sakhy, 2013, 32) concluded that “there is a significant correlation between the speed of response to the two legs and the compatibility between the eye and the two legs with the accuracy of the transmission and by observing the results, we find that the differences between the pre and post tests in the variable exercise came significantly in the skill of crushing hitting, and the researchers attribute this to the changing conditions imposed by the changing exercise on the players from drawing different and surprising environmental conditions, which helps to use the maximum mental capabilities to retrieve the skill, As subjecting the players to many variables at the same time and on one exercise increases the ability to adapt to different situations and results in new responses, which reflects positively on the development of performance in skill. The variable method used in learning has a positive effect on learning motor skills in different sports. The crushing hitting skill is performed from movement and in different parts of the field and at different distances depending on the playing positions, which makes the variable method appropriate for this skill, and it turns out that there are significant differences in favor of the post-tests. For the experimental group, which used fixed random exercise scheduling in the two skills and in all parts (preparatory, main, and final).

The researchers attribute the result to the effectiveness of the training program and its suitability for the sample and the requirements of the game, as the constant exercise makes the player under the influence of one method in which the skill is repeated, which helps to develop motor duties through regular repetition of various exercises, especially since the players are

students and not advanced in the game and that they are They need to learn the basic principles of skill through successive repetition that leads to saving effort and reducing access to fatigue, and this is confirmed by (Salima, 2020, 14).

We find that the group that used variable random exercise scheduling outperformed the group that used fixed random exercise in the skill of crushing beating and in all parts, while no significant differences appeared between the two groups in the skill of transmission, and the researchers attribute superiority in the skill crushing beating is that it is an open skill that allows The player can enter into an atmosphere that suits the atmosphere of the game, as it has different and variable conditions that motivate the player to use his maximum mental abilities to retrieve information related to the skill according to the changing conditions of the motor program. This diversity of performance also supports the player with motivation, suspense, and satisfying the need that drives the player to practice this type of activity. There are no significant differences between the random, variable and fixed exercise in the skill of serving, so the reason may be that the skill of serving is one of the closed skills, as it depends on adjusting the position of the body by the player and the influence of the opponent is less, so it can develop through the two methods as a result of continuous repetition, except The improvement in serving is better in the fixed exercise, although there are no significant differences, as the average of the fixed exercise ranks was better than the average of the variable exercise ranks, and the results of the (pre-post) test for the group that used the variable exercise did not show a significant development in the preparatory part.

The researchers believe that both methods participate in building an action plan for each skill, which facilitates the process of acquisition and development, as well as the speed of storage and retrieval from long memory. However, variable exercise is better for open skills, and fixed exercise is suitable for closed skills.

Conclusions

The scheduling of the variable random exercise has a positive effect on the development of the parts in the skill of crushing hitting in volleyball as well as the positive effect of the two parts (the main and final) in the service skill, but the preparatory part in the service was not affected positively, the scheduling of the fixed random exercise has a positive effect on Developing the parts (preparatory, main, and final) in the two skills, and there were ineffective differences between scheduling the variable and fixed random exercise in the skill of serving in volleyball and in all parts of the skill (preparatory, main, and closing) while there were significant differences in favor of scheduling the variable exercise in the skill of hitting overwhelming and in all its parts.

Recommendations

Reliance on variable random exercise scheduling in developing the crushing hitting skill in volleyball. As for the service skill, this method can be used in the main and closing parts. The variable in developing the crushing hitting skill is more than the scheduling of the fixed exercise. As for the skill of serving, it is preferable to use the scheduling of the fixed random exercise.

Suggestions

Conducting similar studies according to the technical level of the players, conducting similar studies according to the type of skills (open-closed).

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