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Effect the Sequential and Random Methods to Developing the Performance of Some Defensive Skills for Handball Players of Babylon Governorate Clubs

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Abstract

The importance of the research was to identify the effect of the training curriculum in a random and sequential exercise method in developing the performance of some basic defensive skills for the handball players of Babylon Governorate clubs. This prompted the researchers to conduct the research through the use of sequential and random methods in developing the performance of the most important basic defensive skills for the players of the Babylon Governorate clubs in handball during the training program prepared for the purpose Knowing the most appropriate method and method in teaching this skill. While the objectives of the research were to identify the impact of the training curriculum in a random and sequential exercise method in developing the performance of some basic defensive skills for the handball players of the Babylon Governorate clubs. As well as knowing the most appropriate training in developing the performance of some basic skills for the handball players of the Babylon Governorate clubs. The researchers concluded that the learning methods used increased the excitement and enthusiasm of the players, which contributed to the development process. While the researchers recommend the necessity of diversification and change in the use of exercises when teaching and developing motor skills, they help learners to rush towards learning with enthusiasm and without boredom.

Keywords: Babylon Governorate Clubs; Defensive Skill; Handball Player.

A. Introduction

The game of handball is one of the games that have witnessed a "great" development at the level of the countries of the world and took a rapid spread because it contains technical skills and various plans that are interesting to the viewer. The basic skills in the game of handball are the backbone and usually take the longest time in training throughout the training periods, so it requires a lot of effort and thinking, as skill performance is an "important" factor in the game of handball. Defense has a clear importance in modern handball, by working without the attacking team being able to implement its attacking concept and being able to score goals, which results in winning the match, and thus the team can guarantee victory over the opposing team or, at the minimum, achieve a tie. It is very important to pay attention to the defensive aspects, whether they are individual, collective or team, and there are important duties that coaches must define for their players, and defenders must learn and master them in order to perform these duties to the fullest in the matches. Various learning methods have appeared in innovative ways within the exercise, such as the random and sequential learning method and its selection as one of the educational methods in teaching and developing some basic technical skills in the game of handball as a result of the overlap of learning multiple technical skills, as well as its distinction by the different nature of motor performance in relation to other sports and to any To the extent that the learner can master the motor program provided for the purpose of access to effective learning, training and teaching, exercises must be organized and scheduled during the preparation season to facilitate the learning process and retain the skill to develop it into the mechanism. Based on the foregoing, the importance of the research lies in trying to use the sequential and random methods in developing the performance of some defensive skills for the handball players of Babylon Governorate clubs and the effectiveness of these methods in achieving some of the required goals.

The game of handball depends primarily on mastering the basic individual skills of the game well through the skill numbers, which is one of the most important aspects of the numbers of athletes in handball, and the success of the team depends primarily on the ability to learn and master the basic skills, In view of the rapid development that has occurred in educational methods and methods and their role in correcting and addressing errors and their ability to speed up the learning process. Through the researchers' experience with the game of handball, and given the difference of coaches in choosing methods and methods or relying on traditional methods in developing basic defensive skills, sometimes we see that the players perform the motor skills well during the exercise, but after a while we notice a noticeable fluctuation in the level of their performance, and perhaps One of the most important reasons is the failure to choose the appropriate method and method, or that the choice did not match the level and ability of the players. This prompted the researchers to conduct the research through the use of sequential and random methods in developing the performance of the most important basic defensive skills for the players of the Babylon Governorate clubs in handball during the training

program prepared for the purpose of knowing the most appropriate method and method in teaching this skill. The research objective as follow:

1. Identify the effect of the training curriculum in the style of random and sequential exercise in developing the performance of some basic defensive skills for the handball players of the Babylon Governorate clubs.
2. Identifying the performance of some basic defensive skills for the handball players of the Babylon Governorate clubs.
3. Identifying the most appropriate training in developing the performance of some basic skills for the handball players of the Babylon Governorate clubs.

B. Methods

The researchers used the experimental method in the manner of the two equal groups (with the pre- and post-test) because it is the most appropriate in achieving the objectives of the research. The research community was determined by the handball players of Babylon Governorate clubs (Al-Hilla Club, Municipal Club), which numbered (28) players, a random sample of (20) players was chosen and then they are divided into two equal groups (first experimental and second experimental). Research tools were note, personal interviews, test and measure, and questionnaire. Devices and means used: electronic calculator type (Pentium 4); Electronic stopwatches type (Casio) number (2); Video camera (Sony); A metal tape measure with a length of (3 m); A metric tape measure of linen, a length of (30 m); and Legal handballs (10). Field research procedures:

Determining the validity of performing some basic defensive skills for female handball players:

For the purpose of determining the validity of the performance of some basic defensive skills for handball players, the researchers designed a questionnaire based on scientific sources and references and research related to handball and presented it to the specialized experts in the field of handball, and after collecting the forms and unloading the data, the most important skills were accepted and nominated Defensiveness with a moral significance through (Ka^2) moral and table 1 shows this.

Table 1. the validity of some basic defensive skills for female handball players:

N	Defensive skills	Validity		Ka^2	Sig type
		Validity	Non Validity		
1	standby	1	7	4.5	Non sig
2	Opposing	8	0	8	sig
3	Block	8	0	8	sig
4	Cutting, dribbling and possession of the ball	3	5	0.5	Non sig
5	Defensive moves	8	0	8	sig
6	coverage - attribution	3	5	0.5	Non sig
7	Send and receiving	2	6	4	Non sig

* The tabular value of (Ca2) at the significance level (0.05) and the degree of freedom (1) amounted to (3.84)

Determining the validity of performance tests of some basic defensive skills for female handball players:

For the purpose of determining the validity of performance tests for some basic defensive skills of handball players, the researchers designed a questionnaire and presented it to experts in the field of handball. After collecting the forms and unloading the data, the forms of moral significance were accepted and nominated through (Ka^2) intangible, and the table 2 shows that.

Table 2. the validity of handball defensive skills tests for youth:

N	Defensive skills	Validity		Ka^2	Sig type
		Validity	Non Validity		
1	Individual Opposing test	8	0	8	Sig
2	double Opposing test	2	6	4	Non sig
3	One-way block test	3	5	0.5	Non sig
4	Two-way block test	8	0	8	Sig
5	Test the defensive moves of both sides	2	6	4	Non sig
6	Test various defensive moves	8	0	8	Sig

* The tabular value of (Ka^2) at the significance level (0.05) and the degree of freedom (1) amounted to (3.84).

The researchers conducted the exploratory experiment on (8) handball players from the same research community. The experiment was conducted at exactly five o'clock in the afternoon on January 20, 2022 in Hamza Nuri Hall in Babylon. All tests were

conducted, and the exploratory experiment was repeated after (7) days on 27/1/2022, I met the same individuals and under the same circumstances, and the aim was to:

1. Ensure the efficiency of devices and tools.
2. Recognize the time each test takes as well as the time of the total tests.
3. Adequacy of the auxiliary work team.
4. The level of difficulty of the tests for the research sample.
5. Knowing the difficulties that researchers face in order to avoid them in the future.
6. Extracting the scientific bases for the tests (reliability and objectivity).

Validity of the test: Validity is "the accuracy with which the test measures the purpose for which this test was developed" (Kamash, Youssef Lazem, 2002, pg. 149). For the purpose of extracting the validity of the candidate tests, the researcher presented the contents of the tests to a group of experts, and thus the researchers obtained the validity of the content.

Reliability: In order to extract the reliability coefficient for tests, the principle of the constant test must be applied, "which gives close results or the same results if applied more than once in identical conditions" (Al-Zayoud, Nader Fahmy & Alyan, Hisham Amer, 2005, p. 145). It was used to calculate the reliability coefficient (test and retest method) with an interval between the first and second tests (7) days. The researchers extracted the reliability coefficient by means of the correlation coefficient (Pearson) between the results of the first test and the second test, and extracted the significance of the correlation by the statistical method (TR) for the significance of the correlation as shown in Table (3).

Objectivity: Objectivity is defined as "the extent to which the arbitrator or examiner is liberated from subjective factors" (Farhat, Laila El-Sayed, 2001, p. 169). The researchers used the Pearson correlation coefficient for the objectivity of the tests between (the degrees of the first judgment and the second judgment) as shown in Table 3.

Table 3. The Reliability coefficient and objectivity coefficient for tests of defensive skills in handball for youth

N	Tests	Reliability coefficient	T value	Sig	objectivity coefficient	T value	Sig
1	Individual Opposing test	0.79	3.16	Sig	0.88	4.54	Sig
2	Two-way block test	0.91	5.38	Sig	0.92	5.75	Sig
3	Test various defensive moves	0.88	4.54	Sig	0.91	5.38	Sig

* The value of the tabular correlation at the level of significance (0.05) and the degree of freedom (6) reached (0.62).

Pre-test: The researcher conducted tribal tests for the research sample, which numbered (20) players, on 1/2/2022 before starting the main experiment with controlling all the variables.

Homogeneity of the sample: For the purpose of achieving the purpose of homogeneity for the research sample, the researchers took several measures to control the variables, despite the fact that the selected sample is of a similar age, as well as preventing influences that may affect the results of the experiment in terms of individual differences for the research sample. Therefore, the researchers used the statistical means represented by the arithmetic mean, standard deviation, mode and skew coefficient for the variable's length, weight, chronological age and training age to find out the reality of homogeneity or not, as shown in Table 4.

Table 4. the homogeneity of the research sample

Variables	Mean	Std. Deviation	Mode	Skew ness
Length	172.24	7.55	170	0.29
Mass	64.37	4.93	62	0.48
Training age	7.18	2.29	6	0.51
Age	17.11	2.86	16	0.38

Table 4 shows that the values of the torsion coefficient of the studied variables, as well as height, weight, chronological age and training age were less than (1±), and this indicates the homogeneity of the research sample in all the variables.

Equivalence of the two research groups: One of the important things that researchers should follow is to return the differences to the experimental factor. On this basis, the two research groups (the first experimental and the second experimental) must

be equivalent in the variables of the research under study, and before the researcher begins his educational approach, the researcher resorted to achieving the principle of parity between these two groups, as " Each researcher should form equal groups at least with regard to the variables that are related to the research" (Van Dalen, 1985, p. 47). The researchers used the statistical means (arithmetic mean, standard deviation and choice (t)) for independent samples (between the two groups) as shown in Table (5).

Table 5. The equivalence of the research sample for the tribal tests for the tests under research:

N	Tests	Experimental 1		Experimental 2		T value	Sig
		Mean	Std. Deviation	Mean	Std. Deviation		
1	Individual Opposing test	12.43	2.56	11.80	2.40	1.58	Non Sig
2	Two-way block test	15.27	3.18	14.55	3.42	1.49	Non Sig
3	Test various defensive moves	16.44	2.46	16.10	2.65	2.05	Non Sig

Table 5 shows that the values of (t) calculated for the tests under discussion are smaller than their tabular value of (2.10) at the level of significance (0.05) and below the degree of freedom (18), which indicates the achievement of the principle of equivalence in the tests under discussion.

The educational curriculum: An educational curriculum was prepared for the handball players for the first experimental group that used the sequential exercise and the second experimental group that used the random exercise and numbered (10) players for each group. The curriculum was started on the date (2/2/2022) It was applied for two months (8 weeks) at a rate of (3) units per week, and the total number of educational units reached (24) units. The hour (4) in the afternoon in the closed hall of the handball set the date to start performing the exercises after the warm-up process, which takes (10-15) minutes. And it will continue until (3/4/2022).

Posttests: After completing the implementation of the curriculum, post tests were conducted for the two groups (the first experimental and the second experimental), which numbered (20) players, on (5/4/2022), the tests were carried out in conditions similar to the tribal tests and their procedures, and under the direct supervision of the researchers.

Statistical means: Arithmetic mean; Standard deviation; Simple correlation coefficient; T-test for corresponding samples; Test (t test) for independent samples; Torsion coefficient; and Mode.

C. Results and Discussion

Presenting, analyzing and discussing the results of the teams in the pre and post measurements of defensive skills tests for the first experimental group (sequential exercise)

Table 6. the arithmetic mean, standard deviation, and t-test for tests of defensive skills for the first experimental group

N	Tests	Pre-test		Post-test		T value	Sig
		Mean	Std. Deviation	Mean	Std. Deviation		
1	Individual Opposing test	12.43	2.56	14.12	2.11	3.24	Sig
2	Two-way block test	15.27	3.18	17.10	3.15	3.81	Sig
3	Test various defensive moves	16.44	2.46	17.89	2.35	2.75	Sig

Table 6 shows the results of the tribal and remote tests for the first experimental group for the pre-test. The (individual interview) test came with an arithmetic mean (12.43) and a standard deviation (2.56), and in the post-test, the arithmetic mean reached (14.12) with a standard deviation (2.11). Significant differences in the two tests. To clarify the differences, the researchers used the t-test for the corresponding samples, where the calculated t-value was (3.24), which is greater than the tabular value at the level of significance (0.05) and the degree of freedom (9) amounted to (2.26) in favor of the post test. As for the test (the wall of the two-way), the arithmetic mean reached (15.27) and the standard deviation (3.18), and in the post test, the arithmetic mean reached (17.10) with a standard deviation of (3.15).) for the symmetrical samples where the calculated (t) value is (3.81) which is greater than the tabular value at the level of significance (0.05) and the degree of freedom (9) amounted to (2.26) and in favor of the post test, as for the test (various defensive moves), the arithmetic mean was (16.44) and the standard deviation was (2.46), and in the post test, the arithmetic mean was (17.89) with a standard deviation of (2.35).) for symmetrical samples where the calculated (t) value is (2.75) which is greater than

the tabular value at the significance level (0.05) and the degree of freedom (9) amounted to (2.26) in favor of the post test.

Presenting, analyzing and discussing the results of the teams in the pre and post measurements of defensive skills tests for the second experimental group (random exercise):

Table 7. the arithmetic mean, standard deviation and t-test of defensive skills tests for the second experimental group

N	Tests	Pre-test		Post-test		T value	Sig
		Mean	Std. Deviation	Mean	Std. Deviation		
1	Individual Opposing test	11.80	2.40	15.22	2.13	3.77	Sig
2	Two-way block test	14.55	3.42	18.40	2.50	3.69	Sig
3	Test various defensive moves	16.10	2.65	19.38	2.23	3.12	Sig

Table 7 shows the results of the pre and post tests for the second experimental group for the pre-test. The (individual interview) test came with an arithmetic mean (11.80) and a standard deviation (2.40), and in the post test, the arithmetic mean reached (15.22) with a standard deviation (2.13). Significant differences in the two tests. To clarify the differences, the researchers used the t-test for the corresponding samples, where the calculated t-value (3.77) is greater than the tabular value at the level of significance (0.05) and the degree of freedom (9) amounted to (2.26) in favor of the post test. As for the test (the block of two directions), the arithmetic mean was (14.55) and the standard deviation was (3.42), and in the post test, the arithmetic mean was (18.40) with a standard deviation (2.50).) for symmetrical samples where the calculated (t) value is (3.69) which is greater than the tabular value at the level of significance (0.05) and the degree of freedom (9) reached (2.26), in favor of the post test, as for the test (various defensive moves), the arithmetic mean was (16.10) and the standard deviation was (2.65). In the post-test, the arithmetic mean was (19.38) with a standard deviation (2.23). Through the results, it was found that there were significant differences in the two tests, and to clarify the differences, the researchers used the (t-test) for the symmetrical samples where the calculated (t) value is (3.12) which is greater than the tabular value at the significance level (0.05) and the degree of freedom (9) amounted to (2.26) in favor of the post test.

Presenting, analyzing and discussing the results of the teams in the pre and post measurements of the defensive skills tests for the two groups (first experimental and second experimental):

Table 8. the arithmetic mean, standard deviation, and t-test for the post-tests of the two groups.

N	Tests	Experimental 1		Experimental 2		T value	Sig
		Mean	Std. Deviation	Mean	Std. Deviation		
1	Individual Opposing test	14.12	2.11	15.22	2.13	4.26	Sig
2	Two-way block test	17.10	3.15	18.40	2.50	3.58	Sig
3	Test various defensive moves	17.89	2.35	19.38	2.23	4.83	Sig

Table 8 shows the results of the post-tests for the two groups. In the first experimental group, the test (individual interview) reached the arithmetic mean (14.12) and the standard deviation (2.11), and in the second experimental group, the arithmetic mean reached (15.22) with a standard deviation (2.13). Significant differences in the two tests. To clarify the differences, the researchers used the t-test for the corresponding samples, where the calculated t-value (4.26) is greater than the tabular value at the level of significance (0.05) and the degree of freedom (18) reached (2.20) in favor of the second experimental group. As for the test (two-way block), in the first experimental group, the arithmetic mean was (17.10) and the standard deviation (3.15), and in the second experimental group, the arithmetic mean reached (18.40) with a standard deviation of (2.50). A t-test for symmetrical samples, where the calculated (t) value is (3.58), which is greater than the tabular value at the level of significance (0.05) and the degree of freedom (18) reached (2.20) in favor of the second experimental group. As for the test (various defensive moves) in the first experimental group, the arithmetic mean (17.89) and standard deviation (2.35), and in the second experimental group, the arithmetic mean reached (19.38) with a standard deviation (2.23). Corresponding t-test, where the calculated t-value is (4.83) which is greater than the tabular value at the level of significance (0.05) and the degree of freedom (18) amounted to (2.20) in favor of the second experimental group.

Through the foregoing presentation and analysis of the previous tables, it is clear that there is a development in the defensive skills of the first experimental group (the

sequential exercise). The clear role in this development was also confirmed by (Hanafi Mahmoud) "Continuity plays an important role in the player's reaching a high level in terms of technical performance of the skill in terms of accuracy, integration, stabilization and the mechanism of high technical performance (Mahmoud, Hanafi, 1994, p. 54). Saad Mohsen asserts, "The opinions of experts, no matter how different the sources of their scientific and practical culture are, is that the training program inevitably leads to the development of achievement, if it is built on a scientific basis in organizing the training process and programming it, using appropriate and gradual intensity, noticing individual differences, as well as using optimal repetitions and effective inter-rest periods under the supervision of Specialized trainers under good training conditions in terms of place, time and tools used (Ismail, Saad Mohsen, 1996, p. 98). The results also showed that there are significant and preferential differences for the second experimental group (random exercise) in the development of defensive skills for handball players. Effective when teaching and developing open skills, because the learner learns, in addition to motor skills, how to shift attention and focus and create rapid motor programs for the purpose of reviewing changing situations during play (Khayoun, Yaroub, 2002, p. 82). The researchers believe that the random exercise may help the players to adjust the movements and sense the kinetic rhythm of all parts of the movement close to the actual performance of the two skills.

D. Conclusion

There is a preference for the first experimental group that used sequential exercises in developing some defensive skills for handball players. The second experimental group that used random exercise contributed to the development of some defensive skills for handball players. The learning methods used increased the excitement and enthusiasm of the players, diversification and change in the use of exercises, which contributed to the development process. It recommends the necessity of applying the training curriculum prepared according to the educational methods used in research to develop some defensive skills for handball players. Diversification and change in the use of exercises when teaching and developing motor skills, as they help learners to rush towards learning with enthusiasm and without boredom. The necessity of conducting similar studies using (random) methods on the other basic skills of handball and different samples.

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