The Effect of the Programmed Education Strategy to Learning the Under Hand Service and Receiving Service Skills of Volleyball for Juniors

Zena Amer Krem[1], Suhad Qasem saeed Almusawi[2]

[1]M.Sc. Student, [2]Prof. Dr., Faculty of Physical Education and Sports Sciences for Women / University of Baghdad, Iraq

Abstract

In order to advance the education process and raise the educational level of the players, it became necessary to introduce new educational aids, programmed education in the education process, through which the basic skills to be learned are explained and clarified, and immediate feedback is provided that would enhance the information of the learner, and Reaching the goal to be achieved, taking into account the individual differences between the players, and thus it is possible to move away from the educational methods used in learning skills, which requires great effort and time, in addition to that the open playground may not perform the skill accurately and the player looks from one side, while when using the computer you look from several sides and at different speeds, as well as you see the best and most accurate performance because you see perfect performance. The aim of the research is the programmed education strategy to learn the two skills of sending from the bottom and the skill of receiving the transmission with volleyball emerging, and the researchers used the experimental method of pre and post testing for the experimental and control groups, the research population was identified for (24) volleyball players for the 2020 training season, as the research sample was chosen by a comprehensive inventory method and the sample was divided into two experimental groups and the control group, with (12) players for each group, programmed education was applied to the experimental group for a period of eight weeks at three training units per week, and they used the SPSS statistical bag to process the data and obtain the results, from which the researchers reached the most important conclusions that the programmed education strategy had a positive effect on learning the under hand service and receiving service skills of volleyball for juniors

Keywords: *programmed learning, the under hand service, receiving service skills.*

Introduction

Reaching high levels of learning requires following modern and advanced educational strategies that meet the needs of society and its growing requirements. Science is multiplying amazingly, and the learner must be successful in reaching the desired goal, the programmed learning strategy aims to take [1] into account the individual differences and the self-speed of the players, it is one of its types, and one of its main principles is that the learner works on mastering the learning material because he is not allowed to move from the other stages of learning unless he has mastered the previous phase, therefore, this method works to develop the learner's self-direction ability and make him bear responsibility in decision-making, so this programmed learning is a modern methodological process that works on the interaction between the player and the program presented [2] to him without direct influence from the trainer, but the coach's role remains the guide and leader of the educational process, and the game of volleyball is one of the popular sports that broadcast the spirit of competition or recreation because it is a team game that does not cause direct contact with the opponent, it is practiced by different age groups, and the importance of the current research lies in finding [3] an effective and effective educational method for learning, taking into account the ease of use by the learner and providing

it for his effort and time. Programmed education represents one of the latest products produced by modern technology as it entered various walks of life due to its advantages that are not In other educational aids, therefore, the two researchers decided to use a modern educational curriculum from the means of learning [4], which is programmed education as it is one of the means through which it is possible to learn and master the skills of sending from below and the skill of receiving the transmission with volleyball emerging.

Research problem :

Through the experience of the two researchers in the educational field and in the field, they found that in order to advance the education process and raise the educational level of the players, it became necessary to introduce new educational aids, programmed education in the education process, through which the basic skills to be learned are explained and clarified, and immediate feedback is provided, that would enhance the information of the learner, and reach the goal to be achieved, taking into account the individual differences between the players, thus, it is possible to move away from the educational methods used in learning skills, which requires great effort and time, in addition to the fact that the open playground may not perform the skill accurately and the player looks from one side, while when using the computer you look from several sides and at different speeds as well as you see the best and most accurate performance because it sees perfect performance, so the researchers decided to use the programmed education that one of the self-education methods is to teach the two skills of sending from below and the skill of receiving the volleyball transmission for players.

Research Objective:

- Preparing the programmed education strategy to learn the skills of serving from below and the skill of receiving service for junior volleyball.

- Identify the programmed education strategy in learning the skills of serving from below and the skill of receiving volleyball.

Research hypothec : There are no statistically significant differences between the pre and post-tests in learning the under hand service and receiving service skills of volleyball for juniors.

Research fields:

The human field: Volleyball players for the 2020 season.

Time field: From 1/11/2020 to 5/1/2021.

Methodology:

The researchers used the experimental method by pre and post testing of the experimental group and the control group, in accordance with the nature of the research..

Research community and sample:

The research community was determined for the volleyball competition players for the 2020-2021 sports season of (24) players, and the sample was divided into two groups, the experimental group and the control group, with (12) players for each group.

Measures of homogeneity and equivalence were performed for the sample, and the results were:

Table (1) Shows the homogeneity of the sample:

Variables	Measuring unit	Mean	Median	Std. Deviation	Skew ness
Length	Cm	153.166	153	1.266	0.134
Weight	Kg	46.333	46	1.302	0.154
Age	Year	11.5	12	0.674	0.068

Table (2): Shows the arithmetic mean, standard deviations, the calculated (t) value and the significance of the differences in the examined tests between the experimental and control groups in the pretest.

Variables	Groups	Mean	Std. Deviation	(T) Calculated	Sig level	Sig type
Under hand service	Experimental	31.833	2.124	0.371	0.714	Non sig
	Control	31.500	2.276			
Receiving service	Experimental	72.32	3.431	0.379	0.709	Non sig
	Control	64.52	3.482			

Significant at level (0.05) if the error level is less than (0.05).

Methods of data collection, devices and tools used :

- Note
- Tests and measurements
- A device for measuring height and weight
- The volleyball court is legal
- 10 volleyball balls
- 6 computers, 12 CDs.

Tests used:

First: Test the service to a stadium divided into (4) zones: [1]

The purpose of the test: Service skill test measure.

Tools: Volleyball court divided into areas, each with a number, which is an indication of the value of points for the area to which the number belongs, 10 volleyball.

Performance description: The student stands in the designated area to perform the service, and performs the service in a legal manner to cross the net in the field.

The rules:

- The student makes three serve attempts to warm up before beginning the actual notification.
- The student performs (10 transmission attempts).
- Foot faults and grid faults are scored zero.

Registration: Calculates the total point values in its area.

When the ball touches one of the lines of the court, the highest number is calculated for the area that this line follows. The maximum degree(40).

Second: Test the Receiving service: [2]

The purpose of the test: Measure the skill of receiving service.

Tools:

- Legal volleyball court and net of legal height.
- Two circles (A and B) are drawn in the corners of the playing field, so that the distance between the center of the circle and the line of the side is (1.5 m), while the distance between its center and the end line is (3 m), and the diameter of the circle is (1 m).
- The attack area is divided into three equal areas (1,2,3) with a distance of (3 x 3 m). (Figure 2).

Performance description: The student stands inside circle (A) while he is facing the net, and the teacher must send the ball to him, while he is in that place so that

the laboratory receives it and directs it to the inside of area (1) for five balls sent, the same thing applies to the next five balls, so that five balls are directed to area (2), and five balls are directed to area (3). The same action will be repeated with the same number of attempts from circle (B).

The conditions:

- For each laboratory (15) attempts from Circle (A) and (15) other attempts from within Circle (B).

- In all attempts, reception with two hands is used from the bottom.

- An attempt in which the ball is sent from the teacher to the laboratory in an inappropriate manner or outside the circuit in which the laboratory is standing is canceled.

- The sequence of attempts must be adhered to:

- **From circle (A). Five attempts for the region (1). Five attempts for the region (2). Five attempts for the region (3).**

- **B. From circle (b). Five attempts for Region (1), five attempts for Region (2). Five attempts for the region (3).**

Registration: The tester records the total points obtained from the thirty attempts granted to it (15) attempts from each department according to the following method.

- The fall of the ball inside the designated area gives the laboratory (three marks).

- Falling the ball outside the area and into the vicinity gives the laboratory (2 marks).

- If the ball falls outside the area and inside the court, the tester gets a score of 1.

- Except for the above, the laboratory gets a (zero).

The maximum degree (90).

Pre-test:

The researchers conducted the pre-tests on Sunday, 11/1/2020.

Educational programs:

- The implementation of the educational units began on Wednesday, 11/4/2020, and ended on Sunday 3/1/2021.

- The duration of the educational curriculum is (8 weeks) for each week, three educational units, each on Sunday, Tuesday, and Thursday.

- The educational unit time was (90) minutes.

- The researchers used to display a set of illustrations for each skill and comment on it with explanations and slow presentation. For each skill, programmed learning was included using the power point program, which is a program that provides images, drawings and explanations for the skill, and adds dynamic and visual effects, and is displayed in the Duetto Shop

- The preparatory section, its duration is (15) minutes, and the section as follows:

- **The main section**: its duration (65) minutes.

- **The final section**: its duration (10) minutes.

Post- tests.

After completing the implementation of the educational units within the specified period, then conducting the research tests on Tuesday corresponding to 5/1/2021, and the researchers took into account the provision of conditions similar to the pre-tests in terms of (time, place, tools used, and the method of conducting tests) The Hall of the College of Physical Education and Sports Sciences for Girls / University of Baghdad.

Statistical analysis: The researchers used the statistical package (SPSS) to find the appropriate statistical treatments.

Research Results

The results of the experimental and control groups in the studied variables were presented, analyzed and discussed, as well as the results of the differences between the pre and post-tests of the experimental group in the studied variables were presented and analyzed.

Table (3) it shows the difference of the arithmetic mean, its standard deviation, the value of (t) and the significance of the differences between the results of the pre and post-tests of the two research groups in the variables under investigation.

Variables	Measuring unit	Groups	Pre-test		Post-test		(T) Calculated	Sig level	Sig type
			Mean	Std. Deviation	Mean	Std. Deviation			
Under hand service	Degree	experimental	31.833	2.124	31.083	2.810	18.542	0.000	Sig
		control	31.500	2.276	32.300	3.437	10.086	0.000	Sig
Receiving service	Degree	experimental	72.34	3.241	76.12	4.432	11.134	0.002	Sig
		control	64.12	3.416	68.21	4.613	12.342	0.004	Sig

Significant at level (0.05).

Table (4) it shows the difference of the means, the value of (t), the level of error and the significance of the differences between the results of the post-test of the two groups of research in the variables under investigation.

Variables	Measuring unit	experimental		control		(T) Calculated	Sig level	Sig type
		Mean	Std. Deviation	Mean	Std. Deviation			
Under hand service	Degree	31.083	2.8190	32.300	3.437	3.965	0.001	Sig
Receiving service	Degree	79.12	2.523	73.21	3.217	4.451	0.000	Sig

Significant at level (0.05).

Discussing the Results

The results of tables (3 and 4) show, we find that there has been an evolution in the results of the tests searched for the experimental group, in the post-measurement, which indicates that the program prepared by the researchers has positively affected the research variables. The two researchers attribute this development of the experimental group and its superiority over the control group in the skill of learning forward transmission from below and learning the skill of receiving the transmission to the method of programmed education in which the senses were invested through the clarity of presentation among the players and the immediate correction of common errors, especially among them is the pause of preparation (preparation), placing the hands and focusing the eyes, as well as the appropriate repetitions used in the educational units that facilitated the process of kinetic control over the conditions of playing situations during performance, and linking ideas and perceptions with what should be done, as well as the presence of serial images that illustrate the parts of the skill Muhammad Saad Zaghloul and others [(3)], the volleyball player needs to perform according to certain times, and this in turn requires a high degree of control over the output of the motor performance and a great deal of motor perception (Zaki Muhammad Hassan[(4)], programmed education can be used in physical education curricula in educational institutions by providing an encyclopedia of information on various sporting activities and also deals with educational and training programs to develop physical and motor characteristics Qasim Hassan Hussein [(5)].

Conclusions

- The use of the programmed learning strategy has facilitated the process of learning and feedback in a way that helped the players to interact with the educational material for basic skills.

- The use of the programmed education strategy in the learning process worked to save time and effort by the coach in delivering the scientific material for the basic skills in volleyball.

Recommendations:

- The importance of using modern educational methods for a programmed education strategy in learning other basic skills of volleyball.

- Conducting similar studies on other groups and for both genders in volleyball competitions.

Financial Disclosure: There is no financial disclosure.

Conflict of Interest: None to declare.

Ethical Clearance: All experimental protocols were approved and all experiments were carried out in accordance with approved guidelines.

References

1. Dayem AA, Taha AM. A Trainer's Guide in Volleyball, Tests - Planning - Records, 1st Edition, Dar Al Fikr Al Arabi. 1999.
2. Hassanein MS, Moneim HA. The Scientific Foundations of Volleyball and Measurement Methods, 1st Edition, Cairo, Book Center for Publishing. 1997.
3. Hassan ZM. Volleyball Coach, Alexandria, Dar Al Maaref. 1997.
4. Hussein QH. Foundations of Sports Training, Amman, Arab Thought House for Printing, Publishing and Distribution. 1998.
5. Zaghloul MS. Educational technology and its methods in physical education, Cairo, Al-Kitab Center for Publishing. 2001.
6. Al-Musawi SQ. THE EFFECT OF USING SOME PHYSICALEXERCISES WITH HEAVY ROPES TODEVELOP THE DEVELOPMENT OF THEEXPLOSIVE ABILITY OF THE ARMS ANDLEGS AND THE ACCURACY OF THEOVERWHELMING PERFORMANCE OFVOLLEYBALL. International Journal of Research in Social Sciences and Humanities. 2020; 10: 461