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The effect of a proposed method for developing the movement of the wrist in shooting stability for young basketball players

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Abstract
The problem of the research was determined by the youths in the Al-Mawhiba Al-Salawiyyah Center in Baghdad governorate who suffer from a problem in their performance of the skill of aiming from stability through the failure to adjust the motor path of the aiming arm through the direction of the elbow joint outward during the performance, which leads to a defect in the performance mechanics of the skill and lack of consideration for the movement of the wrist of the arm The shot was shot while performing the shooting skill from steadiness, which prompted the researcher to study this problem, trying to solve it through the design of a proposed aid that works to adjust the motor path of the aiming arm and to adjust and develop the movement of the hand wrist of the shooting arm during the performance of shooting from steadiness according to the correct path.
Designing a proposed method in developing the movement of the hand wrist of the arm aimed at the young players in basketball and knowing its impact. And the researcher adopted the curriculum prepared by the trainer, and through this approach, the researcher introduced the proposed method within the applied aspect of the training unit. The training curriculum took (8 weeks) starting from 9/1/2021 until 10/31/2021, with (4) Training units per week, and after the completion of the experiment, the researcher used the appropriate statistical methods to extract the results and then present them in tables.

1. The most important thing that the researcher recommends is: the use of the proposed method in developing and improving technical performance and increasing the accuracy of shooting stability in basketball for young players.
2. The need to use assistive devices and means during the training process to ensure the diversity of the player's experiences.

Keywords: suggested method, shooting from stability

Introduction
Experimental research has contributed to the development of the scientific and practical aspects, contributing to this by improving the applied field reality of society, and sports activities have also taken as a manifestation of life the reasons for science and its methods to solve its problems based on its freedom in an effective developmental direction.
The game of basketball is rich in basic skills, including shooting, as it is not possible to play the game without mastering that skill, and when training it, there must be a specific strategy and multiple methods for the purpose of mastering it in an easy and simplified way in order to save time and effort, so those in charge of the training process tended to find various modalities and methods aimed at Developing the training process, including the use of auxiliary means and devices that contribute to facilitating the learning and training processes by maximizing the individual's experiences and shortening the time and effort expended by the individual and the trainer, coupled with the proper use of these auxiliary means and devices.
Hence the importance of research in this area, which represents an urgent need and an interesting field. In this context, the current study is concerned with examining the effect of using a proposed method to help young players develop the movement of the wrist of the corrected arm during the correction from stability, which is one of the skills that are frequently used by this group reel basket.

Research problem

Through the field examination of the researcher, he noticed that many of the young players in the Al-Mawhiba Al-Salawiyyah Center in Baghdad governorate suffer from a problem in their performance of the skill of shooting from stability by not controlling the movement of the wrist of the aiming arm while performing the skill of shooting from stability during play or in the free throw, which leads to A defect in the performance mechanics of the skill, which prompted the researcher to study this problem, trying to solve it by designing a suggested aid that works to control and develop the movement of the wrist of the aiming arm while shooting from a standstill.

Research objectives: The research aims to

- Design a proposed method in developing the wrist movement of the arm directed to the young basketball players.
- Identify the effect of using the proposed method in increasing the accuracy of shooting stability in basketball for young players.

Research hypotheses: The researcher assumed the following

- The proposed method has a positive effect on increasing the accuracy of shooting from stability in basketball for young players.

Areas of research

- The human field: young players in Al-Mawhiba Al-Salawiyyah Center in Baghdad Governorate.
- Time range: 9/1/2021 to 10/31/2021
- Spatial field: the closed hall of the Al-Mawhiba Al-Salawiyyah Center in Baghdad Governorate, affiliated to the Ministry of Youth and Sports.

Research Methodology and Field Procedures

Research Methodology

The researcher used the experimental approach by designing (two equal groups) for its suitability and the nature of the problem.

Research Sample

The process of selecting the research sample is one of the basic matters that the researcher must pay attention to and take into account. Thus, the research was conducted for the young players registered in the Talent Center in Baghdad Governorate, whose number is (26) players. The sample was divided into two equal groups randomly and by lottery method, one experimental and the other control, with an average of (6) in each group. 3-3 The means, tools and auxiliary devices used in the research:

The researcher used the following means, tools and devices used in the research

- Arabic sources.
- The global information network (the Internet).
- Tests and measurements.
- Observation and experimentation.
- Legal basketball court.
- (6) legal basketballs (Molten).

The test used to measure shooting skill

The researcher relied on standardized tests that had already been used many times on such a targeted research sample, and they were honest, consistent and objective in measuring the shooting skill.

Second: Steady Shooting Test (120:1) Steady Shooting Test (Free Throw) (6:122)

- The aim of the test: - Measuring the shooting skill from stability (free throw).
- Tools used: - Square, basketball goal, basketball.

Executing the test

- Here, each experimenter will have twenty attempts, i.e. twenty free throws.
- Throws are taken from behind the free throw line.
- Throws are performed in groups of four, each group includes five throws, i.e. all twenty throws are not performed at one time so that the first tester performs five throws, followed by the second tester and so on until all testers finish, then they perform again a second, third and fourth time.

Scoring method: One point is counted for each successful goal, but if the ball does not enter the goal, zero is given for that attempt. The highest score obtained by the tested is twenty degrees.

The suggested method for controlling the movement of the wrist of the shooting arm while performing shooting from a standstill

The researcher began designing the proposed method after his belief in the problem that young people and even advanced students suffer from. The research was conducted on young people to eradicate the problem from its origin. The design of the method was guided by scientific sources on how to design, and the researcher had a clear and thoughtful idea based on sound scientific and economic foundations for the purpose of making the method. To make sure of his idea, the researcher initially tested this idea on a small sample, and then some adjustments were made to some measurements. Figure (1) shows the proposed tool and how to work on it by the player.

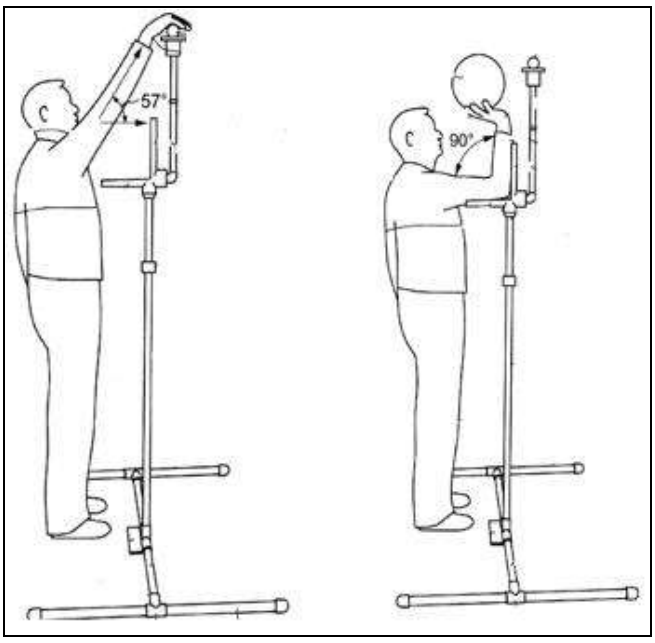

Fig 1: Shows the recommended method

The proposed method is a set of tools combined in one mechanical means, and it consists of

- The base of the instrument is in the shape of the letter H
- A middle column before the rise and fall according to the player's height
- The player's arm support base

Pre-tests

The pre-test was conducted for the research sample in the accuracy of shooting from stability, on Wednesday corresponding to 9/1/2021, in the closed talent hall, as all the training units that were applied were conducted in this hall.

The training methodology used in the research

The researcher adopted the curriculum prepared by the trainer, and through this approach, the researcher introduced the proposed method within the applied side of the training unit, and the work in the curriculum was as follows:

1. The control group: This group used the training method prepared by the trainer to increase the accuracy of shooting from stability without using the proposed method.
2. The experimental group: This group uses the same training curriculum prepared by the trainer with the introduction of the proposed method to increase the accuracy of shooting from stability in the applied side.

The training curriculum took (8 weeks) starting from 9/2/2021 until 10/28/2021, with (3) units per week, thus the total number of training units in the curriculum was (24) training units, where the unit time was (90) minutes As for the time allotted for the applied side, it is (50) minutes. As for the time in which the players of the experimental group worked by shooting using the auxiliary method, it was (30) minutes.

Post-tests

The post-test was conducted on Friday, 10/29/2021, after completing the training modules to increase the accuracy of shooting from stability.

Statistical Methods: (2:178)

The following statistical methods were used:

1. Arithmetic mean.
2. Standard Deviation.
3. T-test for independent samples.
4. T-test for correlated samples.
5. The percentage of development.

Presentation, analysis and discussion of the results

Presentation and analysis of the test results of the control group

Presentation and analysis of the results of the correction test of stability for the control group

Table 1: It shows the results of the correction tests for the control research group

Variable	Pretest		Post-test		calculated t - value	tabular t - value	indication type
Aiming from stability	S	p	S	p			
Precision	13.12	1	14.30	1.04	3,550	2.57	moral

Degree of freedom (5), level of significance (0.05).

Presentation and analysis of the test results of the experimental group

Presentation and analysis of the results of the correction test of stability for the experimental group

Table 2: Shows the results of the correction test for the experimental research group

Variable	Pretest		Post-test		calculated t – value	tabular t – value	indication type
Aiming from stability	s	p	s	p			
Precision	13.12	1	17.30	1.14	8,450	2.57	moral

Degree of freedom (5), level of significance (0.05).

Presentation and analysis of the results of jumping skill tests in the post test between the control and experimental research groups

Table 3: It shows the significant differences between the two experimental control groups in the post-test of shooting skill

variable	the control group		experimental group		calculated t - value	tabular t - value	indication type
Aiming from stability	s	p	s	p			
Precision	17.30	1.14	14.30	1.04	6.78	2.23	moral

Degree of freedom (10), level of significance (0.05).

Discussing the results

Discussing the results of the control and experimental research groups in the jump shooting test

Through the results presented in the tables (1.2.3) it is clear that the amount of development was clear and in good proportions for the control and experimental groups in developing and increasing the accuracy of shooting stability in basketball for the emerging players, knowing that the two groups were subject to one approach and when highlighting the tables (1, 2) It was found that there was an improvement in the level of the post-test compared to the pre-test of the skill in question, but at a different level between the control and experimental groups and in favor of the experimental group, due to the effect of using (the proposed method) as an aid in the curriculum. Towards training as well as shortening the effort and time required. And that the development achieved by the control group is attributed by the researcher as resulting from the application of the curriculum used, which provides many repetitions to develop the skill and display the model from the trainer. By pre-testing and achieving a good development rate, the researcher attributes the development that has been achieved to the experimental research group due to the use of the proposed method, which works to force the player to put his arm that shoots in the right direction and on the same imaginary line that the player must perform during the performance of the shooting skill from steadfastness, i.e. within The movement path required for the skill by maintaining the position of the elbow joint parallel to the player's body and heading towards the basket, and this method simulates the technical performance in an excellent way by directing the wrist of the corrected arm towards the tool placed at the top of the proposed method, which requires the player to touch his fingertips after each attempt A correction that he makes when working on the means, and this thing improves the other side of the skill, which is the

aspect of accuracy in aiming, which is the important thing that Through it, points can be scored in the match, and this is consistent with what was stated by (Hanafi Mahmoud (3:54). It is mentioned that continuity and repetition play an important role in bringing the player to the high level of technical performance of skill, accuracy, integration, and stabilizing the mechanism of high technical performance, and that the use of the proposed method In the curriculum, it helped the player to perform many repetitions. Also, the player's rush towards skillful performance to use modern and easy-to-use methods and tools that he had not used before arouses the player's curiosity in trying what is new. That is, the player performs the repetitions with confidence and desire and works for the better. The application of skill is the use of capabilities and tools to the maximum possible degree. This agrees with what ((Abdul-Hamid Sharaf (7:86)) said, "As the use of equipment and means in learning and training increases the achievement of the player's self-ability, which makes him not be satisfied with less than the maximum effort he makes and enables Improving performance, understanding the aspects of the movement to be learned and trained, and highlighting the general form that the movement is supposed to have during correct performance.

Conclusions and recommendations

Conclusions

In the light of the results reached by the researcher through the field experience and using appropriate statistical methods, the researcher concluded the following:

1. The proposed method has a positive role in developing and increasing the shooting accuracy and stability in basketball for young players.
2. The superiority of the experimental group over the control group in the results of post-tests for the development of shooting accuracy from stability in basketball for young players.

Recommendations

In light of the conclusions reached by the researcher, he recommends the following:

1. Using the proposed method to develop and improve the technical performance and increase the accuracy of shooting stability in basketball for young players.
2. The need to use assistive devices and means during the educational and training process to ensure the diversity of the player's experiences.
3. Conducting studies and other research on different age groups and different skills for both sexes in the game of basketball.

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