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Impact Of Skill Training To Develop Coordination And Some Offensive Skills Ending With Shooting Among Youth Basketball

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Abstract

Primary responsibility of a basketball coach is to maintain a dynamic connection between a player's skill performance and specific vocabulary of game, including required skills and precise movements, to reach a high level. This study aims to identify impact of skill training on developing basketball coordination and its effect on improving specific offensive skills culminating in basketball shooting. researchers defined research community as Hilla Sports Club, specifically youth category. participants, numbering (16) players, were classified into two groups: a control and an experimental which consisting of (8) players for each one. Researchers used an experimental method with two groups, employing a pre-test followed by application of training program, and then a post-test. This was achieved through presentation and analysis. results show differences in performance of the research sample. Researchers attributes these differences to effectiveness of specific physical and skill-based exercises implemented by coach and support staff on participants. Study concluded that skill-based training improves coordination and shooting accuracy among young basketball players, enhances long-range shooting accuracy with jump shots, and develops offensive shooting skills among young basketball players. researchers recommend widespread adoption of specialized training programs that prioritize physical conditioning before skill-based exercises, practical application of skill-based training in various sporting events for young basketball players to improve their shooting skills.

Keywords: Skills Training, Coordination Abilities, Offensive Skills, Shooting, Basketball.

Introduction

style of basketball in recent years has shifted towards fast, strong play, and therefore requires a great deal of physical and technical skill. It is one of games that needs this type of training, which contributes to developing bio-motor abilities and offensive basketball skills due to their great importance during play. Physical training receives significant attention when designing training curricula, alongside skill, tactical, and psychological preparation, as it constitutes major

objectives in preparing and getting ready for comprehensive preparation for sports in general and basketball in particular, with aim of integrating these skills in player and preparing him for competition stage. This is due to unique nature of this game, which differs from other sports, as player has continuous and uninterrupted tasks and duties, sometimes defensive and other times offensive, and effectively throughout game. specific technical skills in basketball are numerous and varied, some being primary and others secondary. These skills can be trained individually, but in matches or exercises during training sessions, they appear interconnected. A composite skill can be formed from two or more skills that are connected to each other. By reviewing basic skills mentioned in a previous post, two or more skills can be linked to each other to perform them together, revealing offensive skills that players always use to perform motor skills required in game. Hence, importance of researching use of skill training to develop coordination and some offensive skills ending with shooting in basketball for young people. Because of its benefit in raising their level, preparing and training them, and helping them reach what they aspire to in competitive matches.

Research Problem

primary duty of a basketball coach is to maintain a dynamic link between player's skill performance and specific vocabulary of game, in terms of its required skills and movement details, in order to reach a high level. As researcher is a referee in Iraqi Basketball League, he attempted to get answer for the following questions:

1- What is the effect of skill training on coordination of young basketball players?

2- What is impact of skill training on offensive shooting skills in youth basketball?

Research Objectives

1- Identifying impact of skill training on developing basketball coordination

2- Identifying impact of skill training in developing some offensive skills that end with shooting a basketball.

Research Hypotheses

1- Skill training has a positive impact on developing coordination in youth basketball.

3- Skill training has a positive impact on developing some offensive skills, ending with shooting in youth basketball.

Research Areas

Human Resources: Youth Players of Al-Hilla Sports Club

Time frame: during 1/7 From 2025 to 20/9/2025

Spatial area: Martyr Hamza Nouri Hall

3-1 Research Methodology

The researcher used an experimental approach with design of (the two equivalent groups) control and experimental, with two pre- and post-tests for each group after applying elements of training method.

3-2 Research Community

researcher defined research community as Hilla Sports Club, specifically the youth category. number of players is (16), and they were divided into two groups, a control and an experimental with (8) players for each.

3-3 Research Tools and Devices Used

It refers to methods or tools by which researcher can solve problems, such as data, samples, or devices. Therefore, the researcher is achieving that by: Data Collection Methods, Testing and measurement. Registration form. Stopwatch. A field for throwing and running. Measuring tape. A medicine ball weighing (3) kg. Colored circles, number (8). Colored numbers, number (8). Office supplies. (20) tennis balls. Basketball balls, number (20). Ball holder box. Squares for accuracy, dimensions (60 x 60) cm. A barrier wall (2m high, 3m wide). Signposts. Colored ribbon. Electronic calculator.

3-4 Search Procedures

3-4-1 Identifying tests that measure variables

Numbered circuit test

The purpose is to measure the coordination of legs and eyes

Tools and resources: A stopwatch; draw eight circles, each with a diameter of (60) cm are numbered.

Performance description: the test subject stands inside circle number one upon hearing the start signal. He then jumps with both feet together to circle number two, then to circle number three, then circle four, until the last circle with number eight

Recording: The time taken by the laboratory to move through all circuits is recorded.

3-4-2 Basketball Offensive Skills Tests

Testing the skill of shooting from a jump

shooting test involves jumping from front to left of free-throw line, then moving in a semi-circle to center and right.

purpose of test: Measuring accuracy by jumping.

Tools needed: basketball court, measuring tape, Basketball balls, number (5), basketball goal>

procedures: Draw three small circles with a diameter measure of (15 cm) as markers for three places where test is performed, as follows: the first marker is to the left of the free throw line and at a distance of (30cm). second marker is the middle of free throw line and (90 cm) away from free throw line towards three-point line.The third marker is to the right of the free throw line and at a distance of (30cm).

Performance description: player takes position of standing in the designated spot outside free throw zone and to the left side with the ball. player scores by jumping with one hand towards the basket without the ball touching goal board (direct scoring). The player has fifteen throws to perform divided into three separate sets, with each set consisting of five throws.First group is to left side of the throwing line and at a distance of (30 cm) (extension of imaginary line for the free

throw). second group is in middle of free throw line and at a distance of (90 cm) (imaginary line bisecting free throw line). third group is to right of free throw line and at a distance of (30 cm) (extension of imaginary line for free throw).
Test management: A scorer who calls out names and register results of throws. A referee stands near the player to give him the ball and observe the correctness of his performance.
Calculating grades: A player is awarded two points when the ball enters the goal (successful shot).
A player is awarded one point for each shot in which the ball touches the rim but does not go into basket. A player's score equals total points earned in 15 throws. Maximum score for the test (30 points).
3-4-3 Peaceful shooting test
purpose of test: Measuring accuracy of skill of aiming smoothly.
Necessary tools: 10 legal basketballs, Marker.
Performance specifications: tester stands on arc of free throw zone and then starts to take ball placed on palm of tester (tester) and performs safe shot, then returns to perform second shot after turning around from behind target placed on arc of circle, and so performance continues for ten attempts.
Registration: number of successful attempts is counted.

3-5 Exploratory Experiment

researcher conducted a survey study on (4) players from Al-Hilla Club, category youth , as this experiment was implemented on Wednesday 20th On 6/2025 AD, in Hamza Nouri Hall at three o'clock in afternoon, players were tested for biomechanical abilities and offensive basketball skills.

3-6 Main Experiment

3-6-1 Pre–tests: the researcher managed tests after planning for research requirements, tools, and assisting team. tests were implemented on sixteen players, and the results of the experiment applied to four players were adopted, and thus number became sixteen players. Tests were applied in closed hall at three o'clock in afternoon.
3-6-2 Curriculum: researcher training exercises will begin during the training unit and only in part of main section on Thursday. The researcher's training ended on 1/7/2025 and on 15/9/2025. Thursday At 4 pm in Hamza Nouri Hall, as follows. Time period (10) weeks. units achieved per week are (3) units applied at Saturday, Monday, and Wednesday. Total number of exercises (30) units. researchers used high-intensity, high-repetition interval training method. researcher's training exercises last between (20-30) minutes of main training session, with coordination exercises given at beginning of main session and strength endurance exercises at end. intensity of exercises containing strength endurance was determined by pulse (p/s) and exercises containing a speed element by time (m/s).
3-6-3 Post - test: After completing application of the curriculum prepared by researcher, researcher began applying post-tests to research sample, which consisted of (16) players. researcher provided, as much as possible, same conditions in terms of place, time, tools, and support team as in pre-test. tests were applied in same closed hall at three o’clock in afternoon on Sunday, September 18, 2025.

3-7 Statistical Methods

The researcher used (SPSS 27) for statistical calculation, as well as EXCEL program. mean. Standard deviation. LEVEN test. Simple correlation coefficient (Pearson's).

4-1 Analyzing, and discussing results of pre- and post-tests for the control group

4-1-1 Presentation and analysis of pre- and post-test results of compatibility test for control group

Table 1. illustrates the value of means, standard deviations, t -value, and differences significance between pre-test and post-test for the control group

Variables	Measurement Unit	Pre-test		Post-test		Calculated (t) Value	Sig. Level	Sig. Statistical
		M.	St.d	M.	St.d			
Coordination	Sec.	6.70	1.25	5.1	0.66	2.75	0.028	Sig.

concordance rate was smaller than error rate 0.05 at a degree of freedom 7, which means there are differences between the pre-test and post-test, and approving of the post-test for the sample of control group.

4-2-2 Analysis of pre- and post-test results of basketball offensive skills for control group

Table 2. illustrates the value of means, standard deviations, t-value, and differences significance between pre- and post-tests of offensive basketball skills for control group

Variables	Measurement unit	Pre-test		Post-test		Calculated (t) Value	Sig. Level	Sig. Statistical
		M.	St.d	M.	St.d			
Shooting from a jump	Sec. degree	7.50	0.0117	12:30	0.0100	3.565	0.009	Sig.
Lay-up shooting	Sec. degree	8.12	0.0077	13.9	0.0106	2.818	0.026	Sig.

results for all offensive skills were less than an error rate of 0.05 at a degree of freedom 7, which means there are differences between pre-test and post-test, and approving of post-test for sample of the control group.

4-3 Analyzing, and discussing the results of pre- and post-tests of the experimental group

4-3-1 Analysis of pre- and post-test results of agility abilities for the experimental group

Table 3. illustrates the value of means, standard deviations, t -value, and differences significance between pre- and post-tests of compatibility for the experimental group

Variables	Measurement Unit	Pre-test		Post-test		Calculated (t) Value	Sig. Level	Sig. Statistical
		M.	St.d	M.	St.d			
Coordination	Sec.	6.64	1.145	4.30	0.403	7.61	0.000	Sig.

The results of the agreement were smaller than the error ratio 0.05 at a degree of freedom is 7, which means that there are differences between pre-test and post-test, which approving of post-test for the experimental group sample.

4-3-2 Analysis of pre- and post-test results of basketball offensive skills for experimental group

Table 4. illustrates the value of means, standard deviations, t -value , and differences significance between pre- and post-tests of offensive basketball skills for the experimental group

Variables	Measurement unit	Pre-test		Post-test		Calculated (t) Value	Sig. Level	Sig. Statistical
		M.	St.d	M.	St.d			
Shooting from a jump	Sec. degree	7.43	0.0118	15.90	0.0184	4.060	0.005	Sig.
Lay-up shooting	Sec. degree	8.32	0.0017	16.23	0.0196	4.379	0.003	Sig.

All values for offensive skills came in smaller than error ratio 0.05 at a degree of freedom 7, which indicates that there are differences between pre-test and post-test, and which approving of post-test for the experimental group sample.

4-4 Analyzing, and discussing the results of control and experimental groups in post-tests

4-4-1 Presentation and analysis of results of control and experimental groups for agility abilities in post-tests

Table 5. illustrates the value of means, standard deviations, t -value , and differences significance between control and experimental groups in post-test compatibility

Variables	Measurement Unit	Control group		Experimental group		Calculated (t) Value	Sig. Level	Sig. Statistical
		M.	St.d	M.	St.d			
Coordination	Sec.	13.421	0.696	12,023	0.403	4.919	0.000	Sig.

Values were less than the error ratio 0.05 at a degree of freedom of 14, indicating differences between the control and experimental groups in the research variables in the post-tests, supporting the experimental group.

4-4-2 Analysis of results of control and experimental groups for offensive basketball skills in post-tests

Table 6 illustrates the value of means, standard deviations, t -value , and differences significance between control and experimental groups in basketball offensive skills for post-tests

Variables	Measurement unit	Control group		Experimental group		Calculated (t) Value	Sig. Level	Sig. Statistical
		M.	St.d	M.	St.d			
Shooting from a jump	Sec. degree	12.30	0.0100	15.90	0.0184	2.805	0.014	Sig.
Lay-up shooting	Sec. degree	12.3	0.0106	16.8.32	0.0196	2.642	0.019	Sig.

All values for offensive skills were less than margin of error 0.05 at a degree of freedom is 14, which indicate there are differences between control and experimental groups in research variables in post-tests, which supporting of experimental group.

4-4-3 Discussion of Results

Through presentation and analysis results of post-tests show that there are differences in research sample. Researcher directs these differences to effectiveness of skill-based physical exercises implemented by coach and assistant staff on sample members throughout (10) week period, players' effectiveness and their desire to implement components of this curriculum, and their direct commitment to implementing duties required by their coach in implementing these components effectively and regularly. Also, curriculum contains exercises that are characterized by being complex in performance, such that implementation of each exercise is a physical exercise related to biomotor abilities and a skill to develop offensive skills. Also, researcher's training was characterized by repetition and repetition. Repeating skill correctly will lead to mastery and development in physical aspect of part performing repetition. Furthermore, continuous practice of skill will enable players to perform it without errors by increasing repetitions in training session. This led to development of jump shooting and handball skills among research sample, as "training requires repetition and variety, as repetition reinforces player's technical and skill performance". Using exercises in training session that emphasize neuromuscular coordination is crucial because every skill requires high levels of neuromuscular coordination, in addition to synchronized movement between ball and player's body. This aligns with what Qasim Hassan Hussein stated: "Focus should be placed on training motor

coordination and motor cohesion and incorporating it into training programs. Using motor coordination for a long period and with continuous repetition will lead to becoming accustomed to ideal motor and temporal framework".

Care was taken to change method of executing exercises used in order to break monotony and instill a spirit of fun and excitement. “Using same training method without change can lead to athlete feeling bored, and may cause a lack of progress in level of muscle strength.” researcher was keen to provide an element of competition among members of research sample in performing these tasks in best way possible, so most of exercises were group rather than individual, and there were also defenders in order for training to simulate reality of matches. Many scientists and researchers have pointed to importance of element of competition and its contribution to developing skills and abilities of individual in any sport; as Brunel believes that competition “providing element of competition in training unit will increase players’ motivation .”

5- Conclusions and Recommendations

5-1 Conclusions: Skill training helps develop coordination and scoring in young basketball players. Skill training works to improve accuracy of long-range shooting by jumping skill among young basketball players. Skill training works to develop offensive skills ending with shooting among young basketball players.

5-2 Recommendations: need to generalize special training curricula that rely on the use of physical exercises before doing skill exercises. need to adopt skill training for young basketball players in enhancing scoring skills related to the type of skill in the practice of different sporting events. Focus on improving of physical exercises that can be used in a manner consistent with the actual situation of competitions and that work to improve training action. The researcher put forward performing studies similar to this study on other activities or games.

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