مجلة جامعة ذي قار لعلوم التربية البدنية المجلد / 2 العدد 1 الجزء1

مجلة جامعة ذي قار لعلوم التربية البدنية

مجلة علمية محكمة تصدرها كلية التربية البدنية وعلوم الرياضة

The impact of exercises with means to help develop agility and learn the skills of chopping and shooting basketball

M. Marwa Aqeel Jasab

norys87vn@gmail.com
Directorate General of Maysan Education

Abstract

ARTICLE INFO

Received: Nov 3,2024

Keywords

Exercises with assistive devices to develop agility and learn the skills of tapping and shooting with a basketball.

Corresponding Author :

norys87vn@gmail.com

Basketball is one of the competitive sports activities characterized by variable motor performance, as the nature of performance in basketball requires high coordination of all physical, motor and skill requirements in changing playing conditions, as it is a game with variable situations. These situations require the player to have the ability to perform many quick movements and complex skills, whether the performance is with or without a ball, and according to the law of the game, basketball requires physical and motor abilities. Through the researcher's follow-upof the game, as it is a school of physical education, she noticed that many students find it difficult to perform some basketball skills. Because basketball is a game that requires many requirements and conditions, as well as its skills, which are characterized by their difficulty, especially in the skills of tapping and shooting from a fixed position, which are among the most important offensive skills in basketball, it is necessary to master this skill, which requires agility in performance. It also became clear that the students are not good at this skill, as well as the presence of errors in performance, i.e. holding the ball, elbow angles and finger movement. Therefore, the researcher decided to prepare exercises with auxiliary tools that motivate the students during application and provide an exciting factor. In practical lessons as well as in developing research variables in order to develop students to reach a higher level. As for the research objectives, they are preparing exercises with auxiliary tools to develop agility and learn the skills of tapping and shooting with a basketball for female students, as well as identifying the effect of the exercises. As for the research hypotheses, the exercises prepared according to auxiliary tools have a positive effect in developing agility and the accuracy of tapping and shooting from a standing position with a basketball for female students. The research sample: The main research community and sample were selected from the students of Al-Furat Girls High School from the fifth scientific grade of section (B) by lottery from sections (A, B, C) with a total number of (35) students. (7) students were excluded for absences and non-compliance. (8) students were randomly selected for the exploratory experiment, where the main experimental sample of the research was divided from (20) students from the research community, and they were distributed into two groups (control, experimental) with (10) students for each method by random. In order to attribute the differences to the experimental factor, the two groups must be completely equivalent in all circumstances except for the experimental variable on the experimental group

1- Definition of research

1-1 Introduction to the research and its importance :

The current era is witnessing a great development in various areas of life, including the fields of teaching methods and educational and training programs with a large share of successes , and that these successes were not born of chance but as a result of sound scientific planning and the use of the best educational means by many researchers and specialists in the field of physical education.

Basketball is one of the events that have received great attention from those concerned and has taken a large share of global development through the efforts of specialists scientifically and practically, as well as the use of modern means has an important role in facilitating the learning and performance of skills in basketball. Basketball is one of the competitive sports activities characterized by changing motor performance, as the nature of performance in basketball requires high coordination of all physical, motor and skill requirements in changing play conditions as it is one of the games with changing attitudes. These situations require the player to have the ability to perform many rapid movements and complex skills, whether the performance is with or without a ball and according to the law of the game and basketball needs physical and motor abilities, and basketball is one of the games that are characterized by the abundance of basic skills that determine the performance of the team and its success through the way it performs and the extent of interdependence between the components of fitness and skill areas and the team can perform the game on a large amount of success because the result of the game is decided based on the difference of points obtained by both teams, and here lies the importance of the search where it stops The skills of this game require quick reactions in

performance according to the requirements and conditions of different play. Sports games and events are never devoid of harmony and harmony in the performance of their skills and movements by creative athletes who, at first glance, see that the skills they perform are sequential and harmonious skills that fascinate the viewer and excite admiration. Motor ability is known as the ability of an individual to perform different skills or participate in activities. Capabilities exist in all individuals and in different proportions and from one individual to another and develop and grow as a result of training. Motor abilities mean the abilities in which the central and peripheral nervous system intervenes in their implementation. They are the link between physical abilities and skill abilities. Hence, the importance of research in the preparation of exercises by modern educational means in the development of agility and learning the skills of chopping and shooting from the stability of the basketball for students .

Research problem:

The serious verification of the vocabulary of the educational process that focuses on the interaction between the teacher and the learner and the educational approach will give its sure fruits if the relationships between the vocabulary of this process are well controlled in a way that we cannot emphasize one without the other.

Through the follow-up of the game, being ateacher of physical education, I noticed that many students find it difficult to perform some basketball skills, and because basketball is a game that needs many requirements and conditions, as well as its skill, which is characterized by its difficulty, especially in the skills of chopping and aiming from the stability of the most important offensive skills of the basketball, it is necessary to master this skill, which needs agility in performance. It was also found that the students are not good at this skill, as well as the presence of errors in performance, that is, holding the ball, the corners of the elbow and the movement of the fingers. Therefore, the researcher

decided to prepare exercises with assistive tools where the students stimulate the application and give a suspense factor in the practical lessons as well as in the development of research variables in order to develop the students to reach a higher level.

1-3 Research Objectives:

1- Preparing exercises with auxiliary tools in developing agility and learning the skills of chopping and shooting withbasketball for female students.

2- Identifying the impact of exercises with tools to help develop agility and learn the skills of chopping and shooting withbasketball for students .

1-4 Research Kindergarten:

1- Theexercises prepared according to auxiliary tools have a positive impact on the development of fitness in the basketball for female students .

2- Theexercises prepared according to auxiliary tools have a positive impact on learning the skills of chopping and straightening the basketball for female students.

1-5 Research Areas:

1-5-1 Human field: Female students of the fifth scientific grade at Al-Furat Secondary School for Girls in Maysan for the academic year (2023-2024).

1-5-2 The obligatory scope: from (15/2/2024) to (20/4/2024) .

1-5-3 Spatial scope: Euphrates Secondary School for Girls Square in Maysan .

2. Research methodology and field procedures

The research problem is what determines the appropriate approach in order to reach the appropriate solutions and within the principles of scientific research followed by the researcher in line with the nature of the problem. On this basis, the researcher used the experimental approach in the two groups equivalent to the pre and post-test, " because it is the most sufficient means to reach reliable knowledge" (Nuri and Rafi , 2004 , p. 51)

2.2 Research community and its sample:

The main research community and sample was selected on the female students of Al-Furat Secondary School for Girls from the fifth grade scientific students of Division (B) in a lottery method from the divisions (A , B, and C), which

numbered (35) students, and (7) students were excluded for absences and non-compliance , and in a random way, (8) students were selected for the exploratory experiment , where the sample was divided into the main experiment of the research from (20) students from the research community, and they were distributed into two groups (control, experimental) by (10) students for each group in a random way , and in order to return the differences to the experimental factor, the two groups must be completely equal in all circumstances except for the experimental variable on the experimental group , where the researcher conducted equivalence on the two groups as shown in Table (1)

1.

The parity table in the search variables shows

Variables	Measurement	Experimental group		Control group			Sig	Significance
		Q	W	Q	W			
Elegance.	Second	- "10-520:	392	498	426	115	910	immaterial
Tabtabah	close up	667	414	Triple 3.	1 225	0.200	844	immaterial
Steady Shooting	Precision	665	625	1,888	704	.329	755	immaterial

2-3 Means, tools and devices used in the research :

2-3-1 Means used in the research :

- **Arabic Resources - World Wide Web (Internet) - Tests and measurements . - Observation and experimentation .**

2-3-2 Tools and devices used in the research :

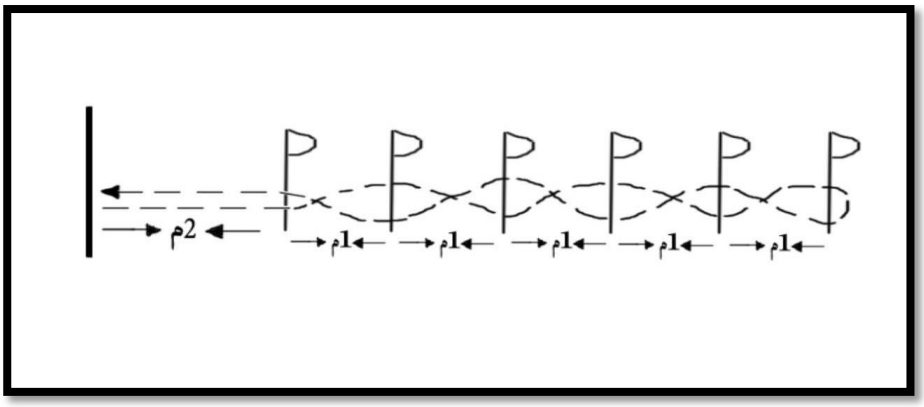
The researcher used the following tools: - a legal basketball court - (10) legal basketballs - (5) learning balls - adhesive tape - whistle (2) - metal measuring tape to measure length - plastic collars (12) – cones - ground ladder - display screen - posters to detail skills - medical palm (4) - stopwatch type (Casio) - computer type Dell (1) .

2-3-3 Tests used in the research :

First /Agility Test:

A- Description of the test that measures the agility variable: (Mowaffaq Asaad : 2007,p. 37)

- **Test Name:** Stadia Zigzag Test (7m) One Way
- **Purpose of the test:** Measuring agility.
- **Tools:** agility stick (6), stopwatch, whistle, measuring tape.
- **Performance Specifications:** The laboratory stands on the starting line and when the starting signal is given, it starts by running quickly between the poles back and forth as shown in Figure
- **Performance Requirements:** The stick must not be touched during the performance, and the itinerary must be followed while running.
- **Recording:** The time is recorded in seconds and to the nearest 1/10th of a second that the laboratory takes back and forth.



|||UNTRANSLATED_CONTENT_START|||الشكل (1)|||UNTRANSLATED_CONTENT_END|||

The agility test

Second / The test is the accuracy of the chip : (Ali Salman Abdul Tarfi: 3013 p. 101).

purpose of test

Measuring the speed and accuracy of the chip :

Tools needed:

Basketball court, electronic stopwatch, (2) legal basketballs, measuring tape, chalk , whistle to give the start signal.

Procedures:

Draw two parallel lines at a distance of (20) meters representing the beginning and end lines as in Figure (1)

Performance Description 3

1- Player B performs the standby position behind the starting line (A) drawn on the ground with the ball .
2- **Give the starting signal to the player running with the chip as fast as possible until he crosses the finish line (B) .**

Test Direction:

1- Player B takes the correct position with the ball .
2- The test ends with Player B crossing the finish line (B) as quickly as possible .
3- **One more.**
4- The number scored by the next player is announced to ensure the factor of competition.

"Score calcutions pending",

Each player's score is the accuracy and time it takes to perform the test from the moment they are given the starting ball at the starting line (A) until they cross the ending line (B)

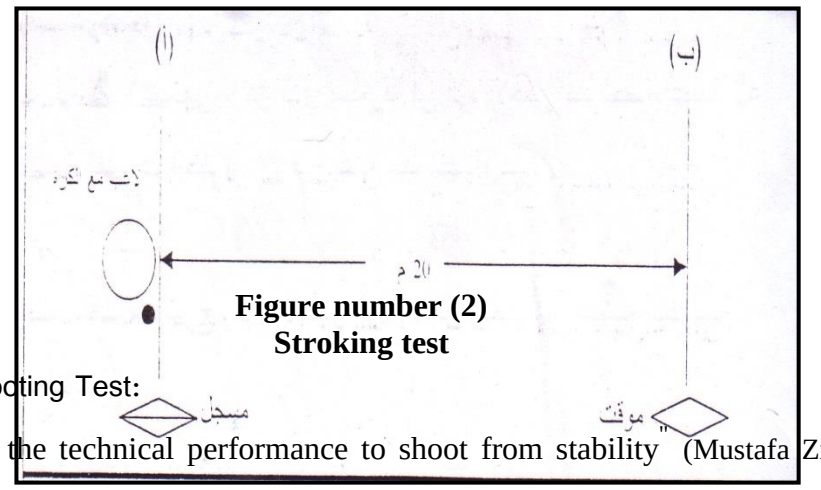


Figure number (2)
Stroking test

Third : Stability Shooting Test:

- **A**- Testing the technical performance to shoot from stability (Mustafa Zidan: 2015,p. 134).

- **Objective of the test: Evaluating the level of technical performance of the shooting skill from stability.**
- **Tools needed: Basketball court – Basketball (3) .**
- **Test Description: The player stands behind the free throw line and in the correct shooting position and performs three consecutive attempts to shoot steadily.**
- **Registration: The laboratory is given three attempts , and it is awarded three grades, and the best attempt grade is calculated for each evaluator, noting that the final evaluation grade for each attempt (10) is divided according to the parts of the skill : preparatory section (3) grade , main section**

(5) Degree, Final M Division (2) Degree .

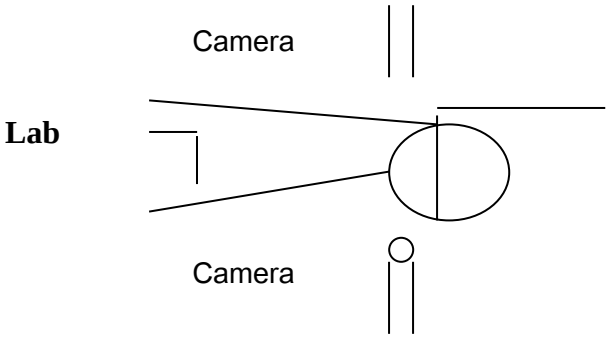


Figure 3:
The aiming test shows the stability

2- 4 The exploratory experiment:

It is one of the very important and necessary means "in the implementation of research, from which the researcher can identify the pros and cons (Kazem Karim Reda: 2012, p. 65). The exploratory experiment was conducted on the date of (15/2/20 24) on a sample of (8) female students and the experiment was conducted at (10am) in the square of Al-Furat Secondary School for Girls to test the agility and swiping and aiming from the stability of the basketball , the aim of which was:

1- Ensure the suitability of these tests for the study sample.
2- Ensure the validity of the tools and devices used in the study .
3-Ensuring the validity of the place designated for conducting the tests and arranging their performance .
4- Identify the errors and problems that may appear during the measurement to avoid them in the basic study.
5- Knowing the time taken to conduct the tests .

2-5 Pre-tests:

Tests are one of the important means of evaluating the level reached by the athlete .The validity of any training program is also shown (Fayez Juma : 2014, p. 188).

Pre-tests were conducted on the research sample of (210) female students " representing the experimental and control groups, with an average of (10) female students for the experimental group and(10) female students for the control group.

. The pre-tests of the group(experimental and control) were conducted on the date of (18/2/20 24) at nine o'clock in the morning in the square of Al-Furat

Secondary School for Girls, Maysan, to test the agility, chopping and aiming of the stability of the basketball .

2 -6 The educational approach used in the research :

The researcher adopted the approach prepared by the trainer, and through this approach, the researcher introduced the auxiliary tools within the applied side to learn chopping and aiming from stability and agility, and after dividing the sample of the researcher into two equal groups as follows:

1- **Control group:** This group used the educational curriculum prepared by the sports school in learning the skills studied without the use of aids and at a time other than when the experimental group was training.

2- **Experimental group:** This group uses the same educational curriculum prepared by the sports school with the introduction of tools to help learn the skills studied .

The educational curriculum took (8) weeks starting from the date of (20/2/2024)until the date of (20/4/2024), to learn the performance of skills, and by (2) educational units per week atnine o'clock in the morning, bringing the total number of educational units in the curriculum to (16) educational units, where the total educational unit time was (45). The educational unit was divided as follows: {The preparatory section, which includes the introduction, the public and private warm-up, and the main section included the educational aspect, the applied aspect and the final section. The main section of the educational unit was selected (the educational part, the applied part)

In the first four weeks, the use of assistive tools and demonstration in learning as well as the use of posters to detail the correct motor performance of the skills and know the correct angles in the performance of each skill. As for the second four weeks, the exercises were performed without the use of assistive tools to learn the students on them. The exercises ranged from ease to difficulty in the 8 weeks.

2-7 Post-tests:

The researcher conducted the post-tests on the date (22/4/2024) after completing the educational units to learn the technical performance of the skills. The post-test was conducted for the two research groups (control and experimental) with an attempt to provide the same conditions and conditions that were in the pre-test.

3-5 Statistical means :

Theresearcher serves IBM SPSS statistics 27 to process data and show results. The following is a presentation of the statistical means used in the current research:

1- Arithmetic Mean

2- Standard Deviation

3- Mediator

4- Pearson correlation coefficient

5- Torsion coefficient.

6- T-testfor correlated (non-independent) samples.

7- T-testfor independent samples.

3-Presentation, analysis and discussion of the results:

3-1 Presentation and analysis of results:

3-1-1Viewing and analyzing the results of the agility tests, accuracy and performance of the clamping and aiming of the stability of the pre and post basketball of the control group .

2

Shows the description and statistical inference ofagility and accuracy of chopping and aiming from the pre and post stability of the control group

Variables	Unit of measure	Pre-test		Post-test		Mean square differences	Variance Deviation	Calculated T	Sig	Significance
		You will	W	You will	∈ = { }					
Elegance.	Second	10.498	0.426	111	483	0.387	0.300	3.871	0.005	Legal
Tabtabah	Accuracy	333	1 225	5	707	667	866	238	0.000*	Legal

									*	
Stability correction	**Accuracy**	**1,888**	**704**	**778**	**.667**	**890**	**494**	**556**	**0.000***	**Legal**

It is clear from Table (2) that there are statistically significant differences in the value of the "T" test calculated between the pre and post measurements of the control group in agility, chopping and correction of stability, where the arithmetic media came in the pre-test, respectively (10.498, 2,333, 1,888) and standard deviations (0.426, 1,225, 1,704), while the arithmetic media came in the post-test, respectively (10.111, 5, 5,778) with standard deviations (0.483, 0,707, 0.667). To identify the differences between the pre and post-tests of the research variables studied for the control group , the researcher used the (t.test) test for correlated samples, where the value of (t) calculated for all significant tests came at a degree of freedom (8) and a level of significance (0.05).

3-1-2 Presentationand analysis of the results of the tests of agility and accuracy of the clamping and aiming of the stability of the pre and post basketball of the experimental group:

Shows the description and statistical inference of theagility and accuracy of chopping and aiming from the pre and post stability of theexperimental group

Variables	Unit of measure	Pre-test		Post-test		Mean square differences	Variance Deviation	Calculated T	Sig
		You will	E	You will	E				
Elegance.	**Second**	**- "10-520:**	**0.392**	**656**	**375**	**.864**	**0.193**	**468**	**0.000**
Tabtabah	**Accuracy**	**667**	**414**	**667**	**1.500**	**4**	**866**	**856**	**0.000***
Shooting	**Accuracy**	**665**	**625**	**112**	**.782**	**556**	**236**	**489**	**0.000***

from stability									

It is clear from Table (3) that there are statistically significant differences in the value of the "T" test calculated between the pre and post measurements of the experimental group in motor abilities, where the arithmetic media came in the pre-test, respectively (10.520 , 2,667, 1,665) and standard deviations (0.392 , 1,414, 1,625), while the arithmetic media came in the post-test, respectively (9.656, 6,667, 7,112) with standard deviations (0.375, 1,500, 0,782). To identify the differences between the pre and post-tests of the research variables studied for the experimental group, the researcher used the (t.test) test for the interrelated samples, where the value of (t) calculated for all significant tests came at a degree of freedom (8) and a level of significance (0.05).

3-1-3 Presentation and analysis of the results of the tests of agility and accuracy of clamping and correction of the stability of the post-basket roller of the control and experimental groups:

Shows the description and statistical inference of agility and accuracy of chopping and aiming from the stability of the post basketball of the control and experimental groups

Variables	Unit of measure	Experimental group		Control group		Calculated T	Sig	Significance
		You will	E	You will	∈ = { }			
Elegance.	Second	656	375	111	483	235	0.040	Legal
Tabtabah	Accuracy	667	1 200	5,100	707	4 082	.001	Legal
Aim for consistency	Accuracy	112	.782	778	.667	898	(0.006)	Legal

It is clear from Table (4) that there are statistically significant differences in the value of the "T" test calculated for the post-test measurements between the experimental group and the control group in motor abilities, where the computational media in the test came in respectively (9.656, 6,667, 7,112) and with standard deviations (0.375 , 1,200, 0,782), while the computational media in the post-test came in respectively (10.111, 5,100 , 5,778) with standard deviations (0.483, 0,707, 0,667) . To identify the differences between the tests and the dimensionality of the research variables studied for the control group , the researcher used the (t.test) test for interrelated samples, where the value of (t) calculated for all significant tests came at a degree of freedom (8) and a level of significance (0.05).

3-1-4 Discussing the results of tests of motor abilities and post-offensive skills of the control and experimental groups:

The researcher attributes the development of her experimental group compared to the control group in the research variables, to the nature of the exercises used , as they represented a set of educational exercises that worked to learn skill performance " lead to an improvement in motor abilities according to the type of effectiveness , which is commensurate with the basic motor path of sports effectiveness"(Youssef Qatami : 2010, p. 193), and he adds (Mayser Mustafa: p. 32) "It became necessary for the trainer to follow the scientific educational methods beginners first by preparing an integrated and balanced (educational) program in order to qualify the player and improve his performance." Therefore, the exercises that were used worked to develop agility and performance in chopping and shooting from the stability of the basketball . One of the factors that helped the development of agility, chopping and aiming from the stability of the basketball of the experimental group, depending on the results of the differences of its tests , is the efficiency of the exercises used, which helped in the harmony of agility and skill performance, which contributed to learning the offensive skills correctly and through various and frequent exercises, where he stressed (Wissam Salah :2014 p. 162) "Educational exercises serve the kinetic aspect of performance , when repeated performance of exercises that are similar in their performance to the

effectiveness or the part to be taught of the effectiveness helps to develop the proper kinetic sense of artistic performance and approach to the form and method of performance , and the meeting of these two aspects, physical and skill , may therefore be reflected on the development of performance for effectiveness." The movement of the basketball player is characterized by the continuous change in the intensity of the performance of the skill work, taking into account that the movement of the player in the complex skills requires him to make difficult movements with the ball in the performance of the skill with the presence of the defender such as the skill of the chopper, where the player must do the chopping work by changing the direction and then penetrating the basket with the change in the movements of the two men and then aiming. Therefore, the player must move quickly and strongly with the control of the ball to create a good opportunity to aim, and this is what the researcher has done by performing exercises that help to master the skill of the chopper, which needs agility in performance. as well as to the skill of aiming .The researcher attributed this to the use of auxiliary tools, which led to an improvement in the accuracy and technical performance of the skill (aiming from stability) of the members of this group, noting that the two groups were subjected to the same approach by the same teacher. The difference was that the control group did not use auxiliary tools in their exercises in the educational units, which made preference for the experimental group that adopted the tools in learning the skill studied, and that the use of tools forced the player to aim at specific ideal angles, which helps to identify and adjust the typical motor paths for correct performance and this serves the foundations The mechanics of skill and improvement in its performance are under discussion, and this is confirmed by (Yaroub Khayoun:2000, p. 175) When the learner knows the mechanical foundations of the skill, this will help in the rapid entry to learn the skill and progress in performance. " The use of tools by the players of the experimental group helped to emphasize the movement of the throwing hand, which is one of the important things in completing the correct shooting process. This also contributes to stabilizing the performance and adjusting and coordinating the parts of the movement with its required tracks. Thus, the auxiliary tools provided the player with live and powerful experiences that help in this by excluding the parts of the movement or movements This is confirmed by (Nahida Abdel Zeid:2016 , p. 179) in that educational devices and means work to

approximate the reality of the movement or skill desired to be learned in the mind of the player or learner.

4 . Conclusions and recommendations :

4-1 Conclusions:

1- The aids achieved a clear improvement in the technical performance aspect of the shooting skill from the basketball stability of the experimental research group.

2- The use of tools helped to shorten the time and effort in learning the skills and accuracy of the skill performance of the basketball.

3- Improved performance in the last stages of learning in the curriculum for all the skills discussed as a result of linking these skills to agility to improve correct motor performance.

4- The exercises with auxiliary tools led to the development of agility and accuracy of chopping and aiming from the stability of the basketball.

2. Recommendations.

In light of the findings of the researcher,he recommends the **following** :

1- Using tools in learning the technical performance of offensive skills, including aiming steadily.

2- The need to use auxiliary tools during the educational process to ensure the diversity of experiences of the learner and to facilitate the learning process in terms of time and effort required for education .

3- It is possible to use learning balls in performing shooting shapes with different samples of players .

4- Focusing on motor abilities, including agility, when performing offensive skills exercises, chopping and aiming to improve the performance of players .

References:

1. Mowaffaq Asaad Al-Hiti : *Tests and Tactics in Football*: (Amman , Dar Degla , 2007) p. 37.
2. Ali Salman Abdul Tarafi: *Applied tests in physical education (physical, motor and skill)*,Baghdad, Al-Nour Office,3013, p. 10 .
3. Mustafa Zidan and Jamal Ramadan : *Emerging Basketball Education*, 4th Edition, Al-Azhar University, Faculty of Physical Education, 2015.
4. Facilitator Mustafa Ismail : The *Impact of an Introductory – Educational Program Using the Intensive and Distributed Exercise Method in Gaining and Retaining Some Separate Tennis Skills*, Master Thesis , Faculty of Physical Education, University of Baghdad , p. 32.
5. Wissam Salah Abdel Hassan, Samer Youssef Mutaib*: Kinetic Learning and its Applications, Physical Education and Sports*, 2014.
6. Yarub Khayoun : *Kinetic Learning between Principle and Practice*: (Baghdad , Al-Sakhra Printing Press, 2000) p. 175
7. Nahida Abdel Zaid Al-Dulaimi : *Fundamentals of Kinetic Learning*, University of Babylon, Faculty of Physical Education, Al-Mathlehah Publishing and Distribution House, 2016 , 1st Edition.
8. Nouri Ibrahim Al-Shouk , Rafi Saleh Al-Kubaisi*: Researchers' Guide to Writing Research in Physical Education*, Baghdad, 2004 , p . 51 .
9. Fayez Juma Al-Najjar et al.: *Scientific Research Methods - Applied* Forum,2nd Edition, Amman – Jordan , 2014.

Module template

Learning unit time/45 minutes, the first week

Educational Objective: To develop agility, chopping andshooting stability

Number of players / 10

DATE 20/2/2017

Educational unit	Time	Details	Teaching aids	Remarks
Preparatory Department	10 min	General Warm Up Special warm-up	- -	- -
Parent category	30 D	Research Educational Exercises		
Educational Impact Challenge	10 min	Explaining and presenting the exercises in detail and how to perform them to the sample members		
Dialogue – practice	20 mins	Exercises prepared by the researcher		
		The student stands in front of a ground ladder and when instructed to start, the student performs the chop with the right hand next to the ladder and moves on the squares of the ladder in succession and when reaching the end of the	Ground ladder, learning balls and whistle	Ensure that students perform the exercises

		ladder, the student stands and performs the skill of aiming by holding the basket that is opposite the ladder with the learning ball		correctly and save the sequence of students during the performance of the exercise
		The student performs agility between the stadia in the chuck and then reaches the last stadia. The student performs shooting by holding the basket that is opposite the stadia in the learning ball	Basketball for learning Sticks for agile performance and whistle	
		The student stands in front of a ground ladder and when instructed to start, the student performs the chopping with the right hand next to the ladder and moves on the squares of the ladder in succession and then chopping between the poles and then installing the stability of the learning ball	Basketball for learning, sticks for agile performance, ground ladder and whistle	
Closing Section	5d	Calming and Relaxing Exercises	-	-