 ***T*** ***Effect of Lactic Endurance Exercises According to Intensity Control to Raise Your Endurance Level And the offensive skill performance in youth basketball***

**Vol 2 Issue 3 P1**  **Thi Qar University Journal of Physical Education Sciences**

Abdul rahman Nabhan Ismail

Ministry of Education / Diyala Directorate of Education

rtrt4432@gmail.com

**Article history:**

**Accepted: 20/ 5 /2025**

**Published online: 20/6 /2025**

**Keywords**:

**Lactic endurance exercises, intensity control,**

**special endurance,**

 **skill performance.**

 ***ABSTRACT***

The importance of the research was evident in raising the level of performance tolerance as well as the skill performance of basketball by adapting to the atmosphere of the match and for the longest possible period of training with the accumulation of lactic acid, as well as according to the density control that is done by giving the appropriate rest that helps to accumulate the lactic necessary to complete the match and win. The **research problem was:** Lactic endurance training in basketball is necessary It is important to help players adapt according to the atmosphere of the match and endure fatigue, and this gives an indication of the role of these exercises and its importance in achieving the required results.  **The aim of the research was:** to identify the effect of lactic endurance exercises according to intensity control to raise the level of special endurance and offensive skill performance in youth basketball. The experimental approach was used, and after applying the lactic exercises, the most important conclusions were reached**:** Lactic endurance exercises according to intensity control are important and essential in raising the level of special endurance and offensive skill performance in youth basketball. It was **recommended:** - Adopting lactic endurance exercises according to density control as they are important and essential in raising the level of special endurance and offensive skill performance in youth basketball.

**1- Definition of the research:**

**1.1 Research Introduction and Importance:**

The achievements achieved in all fields did not come spontaneously, but through the future interest of scientists and specialists in the pursuit of research and experimentation and a statement of what are the necessary requirements to achieve these achievements, including the sports field.

As the achievement of sports achievements is the result of interest in sports training and the provision of everything that requires achieving in the requirements of the game in terms of physical, skill and tactical and here comes the role of scientists in this area to develop appropriate exercises, methods and training methods in the training programs that they see more influential in achieving various results and according to the specificity of the game and for this sees (Muhammad Ali Ahmed Al-Qatt, 1999) "Training programs must be built in order to achieve the development of special physiological abilities required to perform sports activity which is exercised by the individual and this is called the principle of privacy" (Muhammad, 1999: 12)

In the game of basketball, achieving results and winning the game did not come spontaneously, but through attention to the requirements of the game, especially special endurance, which is the main requirement to continue to perform along the periods of the game, which lasts for more than an hour in some cases, and here came the role of choosing the necessary exercises and from us lactic endurance exercises that help in functional changes and the player's ability to endure your and performance for the longest period and for this he sees (Asaad Adnan Aziz (and others), 2011) "launches endurance training Lactic also has names (speed endurance – anaerobic endurance and endurance) as this type of training requires high effort when its own exercises as well as great effects on the internal body systems and raising the physical efficiency of the player" (Asaad, 2001: 241).

And lactic training through density control, which is the important variable in the control between load and rest and during comfort control will help to accumulate lactic acid necessary for the game and for this you see (Esraa Fouad Saleh, 2004) "The measurement of blood lactate has become one of the most important modern physiological tests in evaluating training programs and identifying its impact on aerobic and anaerobic energy release systems, training athletes to increase the ability to endure lactic acid that accumulates in their muscles during the race makes them able to finish Racing at a high speed rate for as long as possible, these physiological adaptations allow the production of more anaerobic energy, as lactic tolerance is developed through: (Israa, 2004: 156).

Hence the importance of research in raising the level of performance tolerance as well as skill performance in basketball by adapting to the atmosphere of the match and for the longest possible period of training with the accumulation of lactic acid, as well as according to the density control that is done by giving the appropriate rest, which helps to accumulate the lactic necessary in completing the match and winning.

**1.2 Research problem:**

Training on lactic endurance exercises in the game of basketball is necessary and important to help players adapt according to the atmosphere of the match and endure fatigue, and this gives an indication of the role of these exercises and its importance in achieving the required results.

Through the experience of the researcher in the field of sports training science and the game of basketball, he noticed that there is an expression and a decrease in the level of skill performance with the progress of the time of the match, which indicates the fatigue and the inability of the players to focus on performance and this is the reason for the training, which may not keep pace with the real fatigue inside the match, including the accumulation of lactic acid equal between training and the match, and therefore giving the appropriate exercises in which lactic acid accumulates with the real performance of the match will certainly adapt the player in the game It is at the highest level and this is what made the researcher in the experimentation of those exercises and know equal to your endurance and skill performance in basketball.

**1.3 Research Objective:**

**1-** Identify the effect of lactic endurance exercises according to intensity control to raise the level of special endurance and offensive skill performance in youth basketball.

**1.4 Research hypothesis:**

1- The presence of a positive effect of lactic endurance exercises according to intensity control to raise the level of special endurance and offensive skill performance in youth basketball.

**1-5 Research Areas:**

**1-5-1 Human field** : Diyala basketball team players for the academic year 2023-2024.

**1.5.2 Spatial field** : the closed hall of the Directorate of Sports and Scout Activities in Diyala Education.

**1.5.3 Time Range** : Period from 11/10/2023 to 28/12/2023.

**2- Research Methodology and Field Procedures:**

**2-1 Research methodology:** The experimental approach was used to address the problem of research and achieve its objectives, especially the design of the two groups (control and experimental) and thus became experimental design.

**2.2 Research community and sample:**

 The research community determined the players of the Iraqi basketball education teams for the secondary stage for the academic year (2023-2024), as for the research sample, the Diyala education team was selected in a deliberate way, numbering (12) players, and they were divided randomly into two groups (control and experimental), and the number of each group reached (6) players. The sample was homogeneous within each group using the coefficient of variation, while the two groups were equivalently using a test (T) of the samples are not correlated and as shown in Table (1).

**Table (1)**

**Shows the homogeneity of the control and experimental samples and the equivalence of the two groups in the research variables**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Search variables | Unit of measurement | Control group | Experimental Group | Calculated value (T) | Significance level |
| Going to | on | Coefficient of variation | Going to | on | Coefficient of variation |
| Length | poison | 178.12 | 1.652 | 0.927 | 178.22 | 1.636 | 0.917 | 0.096 | Immoral |
| Weight | kg | 64.52 | 0.985 | 1.526 | 64.451 | 0.894 | 1.387 | 0.116 | Immoral |
| Withstand strength for arms | number | 22.45 | 0.678 | 3.02 | 22.642 | 0.886 | 3.913 | 0.385 | Immoral |
| Bearing strength for the legs | number | 35.24 | 0.861 | 2.443 | 35.241 | 0.793 | 2.25 | 0.523 | Immoral |
| Bearing speed | second | 37.542 | 0.764 | 2.035 | 37.664 | 0.813 | 2.158 | 0.244 | Immoral |
| Peaceful scoring | degree | 5.041 | 0.556 | 11.029 | 5.142 | 0.678 | 13.185 | 0.257 | Immoral |
| patting changes direction | second | 10.542 | 0.687 | 6.516 | 10.634 | 0.766 | 7.203 | 0.2 | Immoral |
| Thoracic Handling | degree | 15.324 | 0.845 | 5.514 | 15.432 | 0.794 | 5.145 | 0.208 | Immoral |

**\*Tabular value (T) at degree of freedom (10) and error probability (0.05) of = 2.228**

**2.3.1 Means of data collection:**

1- Arab and foreign sources.

2- Tests and measurements used in research.

**2.3.2 Devices and tools used:**

1- Electronic stopwatch (6)

2- Tape measure length (6 meters)

3-Basketballs (6)

4- Legal basketball court

5- Medical scale to measure weight.

6-Chalk.

7- Rope length 3 meters.

8- Lists number (2).

**2.4 Field research procedures:**

**2.4.1 Determine the variables of the research:**

Based on the sources and references in previous studies (Adel, 2010: 11) and according to the research problem, the following variables were reached for their importance in basketball, which is the bearing of your and basic offensive skills and included correction, passing and dialogue.

**2.4.2 Tests used:**

**2.4.2.1 Strength endurance test of the arms** (Mohammed, 2001: 236).

**Purpose of the test:** Measure the strength of the muscles of the arms and shoulders.

**Performance:** From the oblique prone position, the laboratory bends the elbows until it touches the ground with the chest and then returns again to the oblique prone position, the performance repeats as many times as possible as in Figure (2).

**Reviews:**

- Stopping while taking the test is not allowed.

- The straightness of the body is observed during the stages of performance.

- The need for the chest to touch the ground when performing.

**Registration:** Records the number of correct attempts made by the laboratory.

**2.4.2.2 Strength endurance test for both men (Mohammed, 2001: 237).**

**Purpose of the test:** Measure the strength of the muscles of the legs.

**Tools:** Two stands connected by a rubber rope (parallel to the ground) height of (50) fifty cm This tool is placed behind the laboratory during the performance as in Figure (3).

**Performance specifications:** From a standing position with the palms intertwined behind the neck and the knees bent half, the laboratory jumps high to parallel the horizontal rope with the feet, then descend in place and bend the knees in half until the horizontal rope parallels the sitz, repeat this work as many times as possible.

**Reviews:**

- The jump level should reach the feet parallel to the horizontal rope.

- The level of bending of the knees should reach the bench parallel to the horizontal cord.

- The body must be completely straightened when jumping high.

- The jump is in the vertical direction.

- Any performance contrary to the previous attempt will be canceled.

**Registration:** The laboratory records the number of correct attempts made until the effort is exhausted**.**

**2.4.2.3 Speed tolerance test. (Fares, Laith, 2016:413)**

**- Test name:** Speed endurance with three signs.

**- Purpose of the test** : Measuring the speed tolerance time (second and its parts)

**- Tools used**: (3) basketball court signs, whistle, electronic stopwatch.

**- Performance description:** The player stands at the starting point, which is in the middle of the base line in the shooting area from the right side, and when he hears the whistle, he goes to the sign (1), which is in the middle of the three-point line, rotates around it, returns to the starting point, repeats (4) times, then goes to the second sign, which is in the middle of the field, rotates around it (3) times and returns to the starting point, then the direction to the third sign, which is in the middle of the three-point line on the side The other of the pitch and rotate around it and return to the starting point and repeat (2) times and return to the starting point, as in Figure (4).

**- Test conditions:**

- Perform the test quickly.

- Two test attempts.

**- Test Management:**

**\* Timer :** Give the start and end signal via the whistle to calculate the time.

**\* Recorder**: calls on names with note and records the test time.

**\* Calculation of the score**: The player is recorded at the time of the attempt (the best attempt of two attempts) in the performance of the test by adopting the start and end whistle.

**2.4.2.4 Peaceful scoring test.** (Risan, 1989: 450).

**-** Scoring test of peaceful movement after performing tabtaba.

- **Objective of the test** : The test aims to assess the level of scoring accuracy after performing the skills of Tabtaba and triple This test is one of the tests of motor compatibility and skill work arms and legs.

- Devices and tools used: basketball and basketball goal.

**- How to perform the test:** The player performs the tabtaba from the middle of the basketball court towards the goal to perform the triple and then scoring in a peaceful scoring manner from the bottom.

* **Test Conditions:**
* It is required to perform the tabtab and triple legally.
* A ball that enters the goal after committing a legal foul of the tabba or triple does not count towards the goals scored in the ten attempts.
* Sign up:

- For each successful scoring attempt, one point is counted.

- The highest points obtained by the laboratory are (10) points.

**2.4.2.5 Test of the Tabtaba by changing direction.** (Resan, 1989: 455)

**Objective of the test**: The test aims to test the speed of the Tabtaba between a group of signs.

**- Devices and tools:** signs number (6), stopwatch, basketball, the signs are arranged as shown in the drawing with a note of a line for the beginning and a line for the end. The starting line is (5 feet – 5.1 feet) away from the first sign, while the distance between the remaining signs is (8 feet – 80.2 m).

**- Conditions of performance** : the player stands with the ball behind the starting line and when he gives the start signal, he bounces the ball with running around the signs and continues according to the shape until he crosses the starting line with the ball.

- The test is performed as quickly as possible.

- The ball is bounced with any of the hands and legally.

–Signs are placed on a single line and perpendicular to the starting line.

- The ball must be dribbled at least once in each distance between each sign.

- The stopwatch starts the moment the start signal is given, and stops the moment the player cuts the starting line ball after returning.

**- Calculation of grades:**

-Each player is given two consecutive attempts.

- The player is scored as a result of the best attempt to the nearest 1/10 second.

**2.4.2.6 Thoracic handling test. (Resan, 1989: 459)**

–Purpose of the test: to measure the accuracy of the chest handling test towards the target.

- Devices and tools Basketball, a smooth wall drawn on it three overlapping circles with one center with half of the diameters from the inside 18 inches (45 cm), 38 inches (98 cm), 58 inches (150 cm), noting the thickness of the lines one inch.

**– Performance description:** The tester stands behind the throw line drawn on the ground with his hand the ball and at the start signal, the laboratory handles with both hands on the three circles trying to hit the target, and the test must be done with both hands (chest handling), and the laboratory has the right to take a step when performing handling on the condition that it does not exceed the line, and the laboratory must perform ten handlers.

**-Calendar:**

- The attempt that hits the small circle is calculated by three points.

- The attempt that hits the middle circle is calculated by two points.

- The attempt that hits the large circle is calculated by one point.

- If the ball hits one of the three lines of the circle, the tester gets the scores for the circle that hit the line that represents its boundary, provided that the lines are within the scales of the circle.

- The maximum score that can be obtained is thirty degrees.

**2.4.3 Exploratory experiment:**

The researcher conducted an exploratory experiment on 11/10/2023 on some players of the original research sample for the purpose of legalizing the exercises used, finding the training load for the exercises, knowing the effect of lactite endurance exercises, and calculating the intensity, size and comfort.

**2.4.4 Scientific foundations of tests:** Reliance was placed on standardized tests that enjoy truthfulness, consistency and objectivity.

**2.5 Field experience:**

**2.5.1 Pre-tests:** Tests conducted on 13/10/2023

**2.5.2 Lactic exercises:**

 Special exercises have been prepared for lactic endurance with the control of load intensity, i.e. comfort with the load used, and the lactic endurance exercises are one of the direct methods in influencing the functional variables of lactic production, so the lactic endurance is of particular importance in excelling in long-period races and for this he sees (Bahaa El-Din Salama, 2000) "The exercise times in lactic endurance training should not exceed (1-2) minutes and with high intensity because the increase in that The reliance is more on the supply of energy by air" (Bahaa, 2000: 123) and the training modules were prepared as follows:

1. Intensity (90-100%), the number of repetitions is determined by intensity.
2. Rest is metered by pulse as an indicator of rest between repetitions (120-130 z/min) and between totals (120-130 z/min).
3. Number of months: two months, number of weeks :(8) weeks.
4. Number of units :(24) training units.
5. Unit days: Sunday, Tuesday, Thursday.

 After completing the construction of the required exercises in the final form and rationing the training load, it was programmed in the main section of the training units for the trainer, and it was applied during the special preparation period, and the application of the training program began on 7/10/2023 and ended on 23/12/2023

**2.5.3 Post-tests:** Post-tests conducted on 28/12/2023

**2-6 Statistical methods: SPSS has been adopted to find the following variables:**

1. Arithmetic mean 2. Standard deviation 3. Coefficient of variation. 4. T test for non-correlated samples. 5. T test for correlated samples.

**4. Presentation, analysis and discussion of results**

**Table (2) shows the arithmetic means, standard deviations before and after, and calculated and tabular (T) values of the control group in the tests used**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Tests used  | Unit of measurement | Pre-test | Post-Test | Standard error | Calculated T-value  | Significance level |
| Going to | on | Going to | on |
| Withstand strength for arms | number | 22.45 | 0.678 | 24.512 | 0.869 | 0.774 | 2.664 | Moral |
| Bearing strength for the legs | number | 35.24 | 0.861 | 37.586 | 0.994 | 0.874 | 2.684 | Moral |
| Bearing speed | second | 37.542 | 0.764 | 35.214 | 0.799 | 0.995 | 2.339 | Moral |
| Peaceful scoring | degree | 5.041 | 0.556 | 7.142 | 0.784 | 0.564 | 3.725 | Moral |
| patting changes direction | second | 10.542 | 0.687 | 9.001 | 0.457 | 0.498 | 3.094 | Moral |
| Thoracic Handling | degree | 15.324 | 0.845 | 17.211 | 0.992 | 0.575 | 3.281 | Moral |

**Tabular value of (T) at degree of freedom (5) and probability of error (0.05) = 2.132**

**Table (3) shows the arithmetic means, standard deviations before and after and (T) calculated and tabular values of the experimental group in the tests used**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Tests used | Unit of measurement | Pre-test | Post-Test | Standard error | Calculated T-value  | Significance level |
| Going to | on | Going to | on |
| Withstand strength for arms | number | 22.642 | 0.886 | 26.748 | 0.919 | 1.247 | 3.292 | Moral |
| Bearing strength for the legs | number | 35.241 | 0.793 | 39.114 | 0.922 | 0.886 | 4.371 | Moral |
| Bearing speed | second | 37.664 | 0.813 | 33.245 | 0.817 | 1.22 | 3.622 | Moral |
| Peaceful scoring | degree | 5.142 | 0.678 | 9.354 | 0.976 | 1.312 | 3.21 | Moral |
| patting changes direction | second | 10.634 | 0.766 | 7.451 | 0.562 | 0.889 | 3.58 | Moral |
| Thoracic Handling | degree | 15.432 | 0.794 | 19.457 | 0.895 | 1.117 | 3.603 | Moral |

**Tabular value of (T) at degree of freedom (5) and probability of error (0.05) = 2.132**

**Table (4) shows the arithmetic means, dimensional standard deviations, and calculated and tabular (T) values between the control and experimental groups in the tests used**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Tests used | Unit of measurement | Control group | Experimental Group  | T value Calculated | Significance level |
| o Dimensional | on | o Dimensional | on |
| Withstand strength for arms | number | 24.51 | 0.86 | 26.74 | 0.91 | 3.957 | Moral |
| Bearing strength for the legs | number | 37.58 | 0.99 | 39.11 | 0.92 | 2.521 | Moral |
| Bearing speed | second | 35.21 | 0.79 | 33.24 | 0.81 | 3.853 | Moral |
| Peaceful scoring | degree | 7.142 | 0.78 | 9.354 | 0.97 | 3.957 | Moral |
| patting changes direction | second | 9.001 | 0.45 | 7.451 | 0.56 | 4.798 | Moral |
| Thoracic Handling | degree | 17.21 | 0.99 | 19.45 | 0.89 | 3.762 | Moral |

**Tabular value of (T) at degree of freedom (10) and probability of error (0.05) = 2.228**

 By observing tables (2) and (3), which show that there are differences between the pre- and post-circles using the t For the interrelated samples, which show the superiority of the control and experimental groups in special endurance and offensive skill performance, which indicates the achievement of training objectives and commitment to the application of training units, as each of (Marwan Abdul Majeed and Mohammed Jassim Al-Yasiri, 2010) "The goal of the sports training process is to bring the individual athlete to the highest level of athletic achievement in the event or activity in which the player specialized" (Marwan, Mohammed, 2010: 22).

Also, the proper rationing of exercises gives correct and appropriate training for the sample level, and this is confirmed by (Adel Naji Hassan Al-Saadoun, 2010) "The codified training programs organized according to scientific foundations work to develop the physical and skill level of the players" (Adel, 2010: 104).

 By observing Table (4), we found that there is a development and superiority of the experimental group over the control group in terms of developing special endurance, represented in strength endurance as well as speed endurance in addition to offensive skill performance as a result of using the correct exercises appropriate for the game, which are lactic exercises applied according to the appropriate load intensity, and this is what he sees (Qasim Hassan Kazim, Ghasaq Taher Habib, 2023) that lactic exercises "help raise the level of players through the quality of the exercises and their proximity to the performance similar to the play of Where the same motor pathways under research in addition to the process of diversification by stressing between repetitions in order to force muscle cells to produce lactic deliberately with high intensity and descend with intensity to the aerobic system in the second repetition in order to deliberately obtain active rest, which is the process of getting rid of lactic and converting it into energy a second time, so lactic exercises are defined as any form of training in which lactic production increases deliberately through high training stresses and changes with periods when the intensity of training decreases" (Qasim, Twilight, 2023, 260) .

 During these exercises, the endurance of force was developed, which is important and essential in basketball to perform offensive skills in terms of correction, handling and tabtaba, as he believes (Mohammed Reda Ibrahim Al-Madamagha, 2008) that strength endurance is "one of the indicators of the athlete's efficiency in overcoming the resistances that face him during his performance of continuous effort during performance, which are relatively high degrees" (Mohammed, 2008: 126).

 It is also considered to endure speed, which is very important in the launches of the attack with or without the ball and along the periods of the match, so it must be trained with the lactic exercises used, and for this he sees (Mr. Abdel Maksoud, 1991) "speed prolongation is the ability of the player to maintain a level of speed equivalent to the speed of the performance of the competition" (El-Sayed, 1991: 19).

 In terms of offensive skill and the effect of lactic exercises, it is considered the goal of training and to be identical to the atmosphere of the match and competition, as you see (Ishraq Ali Mahmoud, 2002) "the movements that the player must perform in all situations, which are similar to the state of play and required by the game in order to reach the best results while saving effort" (Ishraq, 2002: 15).

**5. Conclusions and recommendations**

**5.1 Conclusions:**

1- Lactic endurance exercises according to density control are important and essential in raising the level of special endurance and offensive skill performance in youth basketball.

2- Controlling comfort through density, which is the important factor in the relationship between pregnancy and rest while reducing comfort and rising again gives an indicator to raise the lactic and this makes the physical adaptation of the player and the ability to continue performance during matches.

**5.2 Recommendations:**

1- Adopting lactic endurance exercises according to density control as they are important and essential in raising the level of special endurance and offensive skill performance in youth basketball.

2- Emphasis on controlling comfort through density, which is the important factor in the relationship between pregnancy and rest while reducing comfort and rising again because it gives an indicator to raise the lactic and this makes the physical adaptation of the player and the ability to continue performance during matches.

**References:**

1. Asaad Adnan Aziz (and others). The Effect of Proposed Exercises by Lactic Endurance Method on Some Physiological and Biochemical Variables for 200m Freestyle Swimming: Al-Qadisiyah Journal of Physical Education Sciences, Volume 11, Issue 3, 2011.
2. Esraa Fouad Saleh: Determining the most appropriate rest period according to the pulse rate for repetitive training and its effect on bearing the special speed and the concentration of lactic acid in the blood and the achievement of running 800 meters: PhD thesis, University of Baghdad, College of Physical Education, 2004.
3. Mr. Abdul Maqsoud. Training and Physiology of Endurance : Free Youth Press, Egypt, 1991.
4. Ishraq Ali Mahmoud. Performance tests of a number of physical and skill variables and their relationship to the results of basketball teams: Master Thesis, College of Physical Education, University of Baghdad, 2002.
5. Bahaa Aldin Salameh. Physiology of Sports and Physical Performance - Blood Lactate : Dar Al-Fikr Al-Arabi, 1st Edition, Egypt 2000.
6. Raysan Khreibit Majeed (et al.). Selection in Basketball : Translator, Higher Education Press, Baghdad, 1989.
7. Adel Naji Hassan Al-Saadoun. Evaluation of some cases of play (skill - tactical) in defense man to man inside a quarter of the basketball court: PhD thesis, College of Physical Education, University of Basra, 2010.
8. Fares Sami Yousef, Laith Muhammad Abdul Razzaq. Building and Codifying Physical Tests for Speed Endurance in Youth Basketball : Published Research, Journal of the College of Physical Education, University of Baghdad, Volume 28, Issue 4, 2016.
9. Qasim Hassan Kazim, Ghasaq Taher Habib. The Effect of Dynamic Lactic Training on Developing Special Endurance and Performing Some Defensive Skills of Handball Players: Al-Mustansiriya Journal of Sports Sciences, Special Issue of the Fourth Practical Conference, 2023.
10. Muhammad Ali Ahmed the cat. Sports Training Members Jobs, Applied Introduction : Dar Al-Fikr Al-Arabi, Cairo, 1999.
11. Muhammad Subhi Hassanein. Measurement and Evaluation in Physical Education and Sports : Dar Al-Fikr Al-Arabi, Cairo, 4th Edition, Part 1, 2001.
12. Muhammad Reda Ibrahim Al-Dammagha . Field Application in Sports Training (Training Theories and Methods): 2nd Edition, University House for Printing and Publishing, and Translation, Baghdad, 2008.
13. Marwan Abdul Majeed Ibrahim and Muhammad Jassim Al-Yasiri. Recent Trends in the Science of Sports Training : 1st Edition, Amman, Al-Warraq for Publishing and Distribution, 2010.

**Appendix (1)**

**Exercise Programming**

Week: First Intensity : 90%

Module : 1-2-3 Time: 70-72 minutes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **t** | **Exercise**  | **Training Size** | **Comfort between iterations** | **Comfort between groups** |
| 1 | The performance of Tabtaba to the middle of the field thanks jogging and then a quick start to perform Tabtaba between the signs to the end of the field  | 10×4 | Pulse return 120-130 z/min | Pulse return110-120Z/D |
| 2 | Handling with the colleague back and forth along the pitch.  | 6×3 |
| 3 | Perform aiming by jumping from the bottom of the basket and following it without touching the ground. | 10×3 |
| 4 | Performance of a drum along the pitch with peaceful shooting. | 10×3 |
| 5 | He played between 3×3 in a quarter of a court. | 2min×3 |