

How to Cite:

Mahdi, Z. F., Qassem, R. R., & Hussein, S. M. (2022). Combined exercises for balance and their impact on learning the skill of peaceful shooting in basketball for the education team of Misan Governor. *International Journal of Health Sciences*, 6(S5), 10467–10478.
<https://doi.org/10.53730/ijhs.v6nS5.10828>

Combined exercises for balance and their impact on learning the skill of peaceful shooting in basketball for the education team of Misan Governorate

Zainab Faeq Mahdi

Collage of Physical Education and Sports Sciences University of Misan, Iraq
Email: Zainab.Faeq@uomisan.edu.iq

Rusul Raed Qassem

Collage of Physical Education and Sports Sciences University of Misan, Iraq
Email: rusul.raed@uomisan.edu.iq

Sara Mohamed Hussein

Collage of Physical Education and Sports Sciences University of Misan, Iraq
Email: Sarah.Mohammed@uomisan.edu.iq

Abstract--Scientific development and training methods are considered a goal that the countries of the world seek to present their knowledge, curricula and concepts in a simplified manner to their teachers with the aim of preparing and developing sports. As for the problem, this may be related to teachers not using this balance ability or perhaps on these abilities and the presence of a weakness in the harmonious abilities of students and the goal of identifying complex exercises for my ability Balance ability and its impact on learning the skill of peaceful shooting in basketball for the Misan educational team, and the imposition of the research there are statistically significant differences between the results of the post tests for the experimental and control groups and in favor of the experimental group. As for the research method, the researchers used the experimental method due to its relevance to the nature of the problem. And the research sample was done by the intentional method, and they are a group of (20) players in the Misan Governorate education team. Conclusions group 1- There are significant differences between the pre and post tests for the post tests of the research variables for each of: (the ability to balance, the peaceful shooting of basketball) and recommendations for attention to the development of harmonious abilities and other skills of basketball players

Keywords---exercises, basketball, education team.

Introduction

Introduction and importance of the research

Scientific development and training methods are a goal that the countries of the world seek to present their knowledge, curricula and concepts in a simplified manner to their teachers with the aim of preparing and developing sports to reach higher levels. There has already been a clear improvement in the level of sports in general, which means that ways must be taken to confront this development. Given that reaching the level of school teams to the degree that enables them to achieve modern learning requirements requires the establishment of students from their childhood according to codified and appropriate training programs in all aspects, physical, skill, planning, intellectual, psychological and harmonic, to build a base of athletically talented students in the future. The relationship between the basic skill and the ability to balance is a close relationship and it is of great importance in the learning process, as the student must possess a certain basis of combinatory abilities. It is what enables the individual athlete to perform various technical skills to perform multiple activity and is the cornerstone in the individual's access to the highest levels as for the importance of the research, it lies in the fact that it is an attempt by researchers to prepare complex exercises to find out their impact on some ability to balance and correct the harmonious basketball game, because it is the most games in sports activities and Iraqi schools and has school competitions. From this objective understanding of the importance and role of basketball shooting, the researchers sought to prepare complex exercises that contribute to the development of some harmonic abilities and teach basic skills that enable the student to control and control to be of assistance to physical education teachers to improve the level of performance and improve their teams and results and to contribute positively to the development of Performance and motor duty.

Research Problem

The student must possess a certain ability of compatibility where there is a close link between the abilities and the ability to balance that is based on technical aspects to develop and refine motor skills. Movement and balance. This may be related to teachers not using this ability to balance, or perhaps on these abilities, and the presence of weakness in the harmonious abilities of students, which researchers believe has an important role in learning the peaceful shooting in the game of basketball, as it has an important impact in reducing time and effort to focus on the educational process.

Research Objectives

1. Develop complex exercises for the ability of the ability to balance and its impact on learning the skill of peaceful shooting in basketball for the Misan education team

- Identifying compound exercises in the ability to balance and their impact on learning the skill of peaceful shooting in basketball for the Misan education team.

Research hypotheses

- There are statistically significant differences between the results of the pre and post tests for the experimental group and in favor of the post tests.
- There are statistically significant differences between the results of the post-tests for the experimental and control groups and in favor of the experimental group.

Research Areas

- The human field: the players of the Misan education team, which are (20) players.
- Time range: 1/20/2022 to 1/6/2022
- Spatial domain: Wissam Oreibi hall.

Research methodology and field procedures

Research Methodology: The research methodology to be studied must be appropriate to the nature of the problem and expressed in a way that does not accept error. Therefore, the researchers used the experimental method for its suitability to the nature of the problem. The sample members were divided into two equal experimental groups.

Research Sample

The sample “is the part that represents the community of origin or the model on which the researchers conduct the entirety and focus of his work” (1). The number of the research sample was chosen by the intentional method, and they are a group of (20) players in the Misan Governorate basketball team. They were divided into two groups (control) and (experimental) and by lottery with (10) players for each group (and in order to return the differences to the experimental factor, the experimental and control groups must be completely equal in all conditions except for the experimental variable that affects the experimental group) (2) The researchers conducted parity on the members of the two groups in Table No. (1) showing the parity.

Table (1) shows the statistical parameters (arithmetic mean, standard deviation, calculated (t) value and the significance of the differences between the experimental and control groups in the tribal tests

indication	Indication level	Calculated T value	control group		experimental group		measuring unit	Statistical coefficients Test name
			±	s	±	s		
not significant	0,682	0,416	1,069	90,86	1,59	89,26	second	ability to balance
not significant	0,806	0,249	0.84	3,60	0.94	3,70	Degree	Peaceful goal

The degree of freedom (n-2) (20-2=18) and the significance level (0.05)
Means of collecting information, devices and tools used in the research:

Tools used in the research

(Arab and foreign sources, the international information network (the Internet, the exploratory experiment, tests and measurements, the statistical means of the SPSS system, personal interviews)

The devices used in the research

((Computer, Dell Pentium (4) laptop, Canon 2900 laser printer, Sony (2) stopwatch, 10 hour balls, scale. - Hand shield))

Field research procedures

Identification of Tests

The most important thing he needs is that the researchers prepared a form to choose the appropriate tests for the skills under study. The form was presented to a group of specialists in kinetic learning and teaching methods of basketball, numbering (4) supplement (1) and (2), and after collecting and unloading the forms, the tests that achieved the percentage of agreement (70%) and above, and Table (2) shows this.

Table (2) Shows the percentages of experts selected for the tests under study

The ratio	Repetition	the exams	skills
%75	3	Metatarsal stand test	ability to balance
%25	1	Walking on the balance beam	
%25	1	Peaceful shooting speed measurement	Peaceful goal
%75	3	Peaceful shooting from the front side and at a distance of (3 m(

Research tests

First: Static equilibrium tests (1)

- Test name: Metatarsal stand test
- Purpose of the test: To measure static balance, when the tester is standing on the floor with the instep of the foot.
- Tools needed: Stopwatch or wristwatch with seconds hand.
- Description of performance: The tester takes a standing position on one foot, preferably the stepping foot, then
- He places the foot of the other free leg on the inner side of the knee of the man on which he is standing
- When the start signal is given, the laboratory raises its heel off the ground and maintains its balance for maximum
- For as long as possible without moving the limbs of his foot or touching the heel of the ground.

Test instructions

- Perform the test without shoes.

- The hands should be kept firmly in the middle.
- The test period ends when the feet are moved from their position or when the heel of the foot touches the ground.
- Three attempts are allowed.

Test management

- Arbitrator: Gives the start signal, monitors performance, and calculates time.
- Recorder: Calls the testers and records the results.

Calculation of grades

The best time is calculated for three attempts, which is the time that starts from the moment of lifting the heel off the ground until committing some performance errors and losing balance.

Second: The test is the peaceful aiming from the front side and at a distance of (3 m). (1)

- The purpose of the test: measuring the accuracy of the skill of peaceful shooting from the front to the side at a distance of (3 m)
- Necessary equipment: a mini basketball court, a mini basketball goal, two poles, 50 cm high, a whistle.
- Performance specifications: The tester stands in front of the basket board, then starts to take the ball placed on the palm of the test-taker and performs the peaceful shooting, then returns from the other side on the other side with the peaceful shooting secondly after its rotation behind the person placed on the sides and so on for (10) attempts (5) from the left and (5) from the right and so on by continuing, noting that the balls placed on the palm of the test-takers are 3m away as shown in the figure

Test conditions

- The laboratory is granted (10) attempts, distributed (5) attempts from each side.
- It is required to legally perform the peaceful correction.
- Registration: For each successful attempt at shooting, one point is counted. The highest score obtained by the tester is (10) points.

Experimental Experiment

The researchers conducted an exploratory experiment on Thursday, 3/3/2022, on a sample of (6) players in the education team in Misan Governorate, before conducting his research with the aim of choosing research methods and tools.

Tribal Tests

The researchers conducted tribal tests before starting the training curriculum, which included tests (balance ability and peaceful shooting in basketball) on Thursday at ten o'clock in the morning on 10/3/2022 in the special hall in the Misan team

Educational Curriculum

Below is an explanation of the steps that were used to use the compound exercises for the ability to balance by learning the skill of peaceful shooting in basketball for middle school students:

- The goal of the compound exercises and combinatorial abilities is to learn the skill of the peaceful shooting.
- The period of education lasted (16) weeks.
- Number of educational units per week (2) educational units
- Weekly teaching days (Sunday, Wednesday) according to the school schedule
- Complex exercises vary in harmony and balance ability with the peaceful shooting of basketball.
- Rest is given between exercises prepared by researchers.

Post-tests

The researchers conducted the post tests for his research sample (experimental and control group) on Friday 15/5/2022 and he followed the same method he followed in the tribal tests after completing the scheduled period of the experiment, which lasted 8 weeks, and the researchers were keen to find all the conditions and requirements for the tribal tests When conducting post-tests in terms of time, place and means of testing.

Statistical means: (1)

In order to achieve the goal of the study, the researchers used the statistical package for social sciences (spss) (Percentage law, arithmetic mean, standard deviation, median, t-test for correlated samples, t-test for uncorrelated samples, skew coefficient, t-test for two related means)

Presentation, analysis and discussion of the results

Presentation, analysis and discussion of the results of the pre and post tests for the experimental and control groups:

The researchers deliberately applied the tests to the main research sample of the two groups (experimental and control) consisting of (10) players for each group.

Presentation and analysis of the results of the pre and post tests for the group's ability to balance and peaceful shooting in basketball.

After unpacking the data for the pre and post tests of the experimental group of researchers, and processing them statistically, it was shown in Table (3)

Table (3) The results of the pre and post tests of the experimental group show balance and peaceful shooting in basketball

indication	Significance level	Calculate d T value	dimensional		tribal		measuring unit	Statistical coefficients Test name
			±	s	±	s		
D	0,00	7,84	1,13	72,38	1,59	89,26	second	ability to balance
D	0,00	9,39	1,03	7,20	0.94	3,70	Degree	Peaceful aiming

The degree of freedom (n-1) (10-1=9) is statistically significant at the level of significance \geq (0.05)

By looking at Table (3), which shows the results of the pre and post test for the experimental group

In the ability to balance test, the arithmetic mean of the pre-test results reached (89.26) degrees, with a standard deviation (1.59), while the arithmetic mean in the post-test reached (72.38) degrees, with a standard deviation of (1.13)

When using the T-Test law for correlated samples, the calculated T value (7.84) appeared under the significance level (0.00) and with a degree of freedom (9), and thus the difference is statistically significant and in favor of the post-test.

As for the peaceful correction test, the arithmetic mean of the pre-test results reached (3.70) degrees, with a standard deviation of (0.94), while the arithmetic mean in the post-test reached (7.20) degrees, with a standard deviation of (1.03)

When using the T-Test law for correlated samples, the calculated (T) value appeared (9,39) under the significance level (0.00) and with a degree of freedom (9), and thus the difference is statistically significant and in favor of the post-test.

Presentation and analysis of the results of the pre and post tests of the control group, the ability to balance and peaceful shooting with basketball.

After unloading the data for the pre and post tests of the control group of researchers, and processing them statistically, as shown in Table (4)

Table (4) The results of the pre and post tests of the control group show the ability of balance and peaceful shooting in basketball.

indication	Significance level	Calculated T value	dimensional		tribal		measuring unit	Statistical coefficients
			±	s	±	s		Test name
D	0,00	2,33	1,065	88,74	1,069	90,86	second	ability to balance
D	0,00	3,54	0.56	4,90	0.84	3,60	Degree	Peaceful aiming

Degree of freedom (n-1) (10-1 = 9), statistically significant at significance level \geq (0.05)

By looking at Table (4), which shows the results of the pre and post test for the control group

In the ability to balance test, the arithmetic mean of the pre-test results reached (90.86) degrees, with a standard deviation of (1,069), while the arithmetic mean in the post-test was (88.74) degrees, with a standard deviation of (1,065)

When using the T-Test law for the interconnected samples, the calculated (T) value appeared (2.33) under the significance level (0.00) and with a degree of freedom (9), and thus the difference is statistically significant and in favor of the post-test.

As for the peaceful correction test, the arithmetic mean of the pre-test results reached (3.60) degrees, with a standard deviation of (0.84), while the arithmetic mean in the post-test was (4.90) degrees, with a standard deviation of 0.56.

When using the T-Test law for correlated samples, the calculated (T) value appeared (3.54) under the significance level (0.00) and with a degree of freedom (9), and thus the difference is statistically significant and in favor of the post-test.

Presentation and analysis of the results of the post-tests for the experimental and control groups, the ability to link movement, balance and peaceful shooting in basketball.

After unloading the data for the two post-tests of the experimental and control groups of researchers, and processing them statistically, as shown in Table (5)

Table (5) shows the post-tests of the experimental and control groups, the ability to balance and peaceful shooting in basketball.

indication	Indication level	Calculated T value	control group		experimental group		measuring unit	Statistical coefficients
			±	s	±	s		Test name
D	0,00	4.72	1,065	88,74	1,13	72,38	second	ability to balance
D	0,00	5,66	0.56	4,90	1,03	7,20	Degree	Peaceful aiming

The degree of freedom (n-2) ($20-2 = 18$), is statistically significant at the level of significance $\geq (0.05)$

By displaying in Table (5) the results of the post-tests for the experimental and control groups

It is clear to us that the arithmetic mean in the ability to balance test reached (72.38) degrees for the experimental group, with a standard deviation of (1.13), while the arithmetic mean for the control group reached (88.74) degrees, with a standard deviation of (1,065)

When using the (T-Test) law for uncorrelated samples, the calculated (T) value reached (4.72) under a significance level (0.00) and a degree of freedom (18), so the difference is significant and in favor of the experimental group.

In the peaceful shooting test, the arithmetic mean was (7.20) for the experimental group, with a standard deviation of (1.03), while the arithmetic mean for the control group was (4.90) with a standard deviation of 0.56.

When using the T-Test law for uncorrelated samples, the calculated (T) value reached (5.66) under a significance level of (0.00) and a degree of freedom (18), so the difference is significant and in favor of the experimental group.

Discussing the Results

After reviewing the results shown in Table (3), which shows the results of the experimental group in the pre and post measurements of the tests under study and Table (4) which shows the results of the control group in the pre and post measurements of the same tests, as well as Table (5) which shows the results of the post tests for the two experimental groups And the control group, it is clear to us that the experimental group had a better level of development than the control group, as evidenced by the results that we found in the aforementioned tables. The results of the experimental group whose members applied the special exercises in the development of peaceful shooting and balance, the development of their level was better than the control group that did not use the special exercises, but worked according to the exercises set by the team coach, and what reinforces this talk is to return to the results of the tables (3). (4)(5) The researchers attribute the reason for the development of the control group to its regularity with the educational units assigned to it according to the pre-prepared curriculum, as well as repetitions in performance and the continuation of applying the units

designated for teaching basic skills in basketball. Making the players in a state of constant movement, i.e. giving the freedom to work according to their abilities and talents, which made them rely on themselves for work, or the motor duty assigned to them, which motivated them to exert their maximum potential in the lesson. Also, the development obtained by the experimental group came as a result of the desire and motivation of the learners; As the desire and motivation of the learner is generated, making him reach a level of good performance, especially when the researchers reinforced the educational curriculum with a large number of balls that were given to the learners, and made each learner have a basketball while performing the exercises according to the assigned learning units and each according to the exercise and its quality, which led to maintaining The number of repetitions and performing them in the specified time and according to the performance of the exercise or skill, and this is consistent with what was indicated by (Mahjoub, 2001) that “exercise with the tool (such as the ball) moves the learner to the best performance during practice.” (1) The researchers also confirmed that, although shooting plays an important role in determining the results of many matches; As matches are often decided win or lose from above a line of stability, and stability is easy because “the defense and distance variables are fixed.” (1) The researchers agree with “which requires the player to be in continuous movement, whether with or without the ball, and while moving, the opponent must be observed while thinking about the correct behavior when receiving the ball from a colleague, facing the opponent and getting rid of him (2) The researchers agree with what was indicated by (Raad Jaber, Kamal Aref) 1990: “The goal of the exercise is for the player to be able to adjust the angle of the ball’s flight, its speed, and the appropriate forces for entering the ball into the basket through the many repetitions that he performs with the coach’s instructions and instructions to the players during the exercise and correcting Technical errors of the scoring process (3)

Conclusions and recommendations

Conclusions

1. The proposed curriculum, which includes the use of harmonic compound exercises within the school's physical education lesson, has a positive impact on the study variables.
2. The emergence of a development in the results of the post-test in the harmonic abilities (the ability to balance)
3. The emergence of an evolution in the results of the post-test in the skill of peaceful shooting in basketball
4. There are significant differences between the pre and post tests for the post tests of the research variables for each of: (the ability to balance, the peaceful shooting in basketball)

Recommendations

1. Attention to developing the harmonious abilities and other skills of basketball players

2. Focusing on training the player on the harmonious abilities of the different types in the presence of an opponent and in conditions similar to the conditions of a player.
3. When developing harmonious activities programs, it should include different types of harmonic exercises in order to develop all aspects of physical, motor, skill and psychological growth.
4. Conducting more studies to know the effect of the harmonic compound exercises on samples that were not addressed in the current study in terms of age and for both sexes.

References

- 1) Abdel-Dayem Hassanein: Hadith in Basketball: Education - Training - Measurement - Selection - Law, 2nd Edition, Cairo, Arab Thought House, 1999.
- 2) Citrawan, I. W., Widana, I. W., & Suarta, I. M. (2018). Education sector optimization for improving human development index. *International Journal of Social Sciences and Humanities*, 2(1), 117-133. <https://doi.org/10.29332/ijssh.v2n1.102>
- 3) Hara. *Athletic Training Principles*. Translation (Abd Ali Nassif). i 2. Mosul: Higher Education Press, 1990.
- 4) Karrar Salah Salman Al-Tamimi: A test battery according to the motor patterns and offensive skills to select the players of Al-Salwa school in Misan Governorate, Master's thesis. Al-Qadisiyah University College of Physical Education and Sports Sciences, 2013..
- 5) Muhammad Sobhi Hassanein: *Measurement and Evaluation in Sports Physical Education*, Part One, i 1, (Cairo, Dar Al-Fikr Al-Arabi) in the year 2001.
- 6) Mustafa Hussein Bahi. *Applied Statistics in the Field of Educational, Psychological, Social and Sports Research*, 1st Edition. Cairo: Al-Kitab Center for Publishing, 1999.
- 7) Mustafa, A. R., Ramadany, S., Sanusi, Y., Made, S., Stang, S., & Syarif, S. (2020). Learning media applications for toddler midwifery care about android-based fine motor development in improving midwifery students skills. *International Journal of Health & Medical Sciences*, 3(1), 130-135. <https://doi.org/10.31295/ijhms.v3n1.290>
- 8) Raad Jaber, Kamal Aref: *Technical skills in basketball*, Baghdad, Ministry of Higher Education and Scientific Research Press, 1990.
- 9) Salem Al-Mukhtar: *With Basketball*, Beirut, Al-Maaref Foundation, 1991.
- 10) Suryasa, I. W., Rodríguez-Gómez, M., & Koldoris, T. (2022). Post-pandemic health and its sustainability: Educational situation. *International Journal of Health Sciences*, 6(1), i-v. <https://doi.org/10.53730/ijhs.v6n1.5949>
- 11) Thouqan Obeidat and others: *Scientific research, its concept, tools, and methods*, Amman, Dar Al-Fikr, Publishing and Distribution. (1988)
- 12) Wajih Mahgoub; *The origins of scientific research and its curricula*: (Baghdad, Directorate of Dar Al-Moharaj for Publishing and Distribution, 2002)

In the name of Allah the Merciful accessory (1)
Nomination of tests by the experts

To

Good greeting

The researchers aim to conduct a study entitled (complex exercises for balance and their impact on learning the skill of peaceful shooting in basketball for the education team of Misan Governorate) And in view of your scientific standing and proven competence..... Please kindly choose one test for each of the tests under study in the attached form in order for us to complete the research requirements..... .. and much appreciation and respect

Researchers

Note:- Please put a tick (/) in front of the appropriate test.

the choice	the exams	Variables
	Metatarsal stand test	ability to balance
	Walking on the balance beam	
	Peaceful shooting speed measurement	Peaceful goal
	Peaceful shooting from the front side and at a distance of (3 m(

The names of the experts to whom the questionnaire was distributed to determine
the most important special tests

Jurisdiction	Workplace	The name	No
mods / basketball	University of Maysan/Faculty of Physical Education and Sports Sciences	A. Dr. Ali Abdel Imam	1
Training / Basketball	University of Maysan/Faculty of Physical Education and Sports Sciences	Prof. Dr. Ahmed Abdel Emam	2
Kinetic Learning / Basketball	University of Maysan/Faculty of Physical Education and Sports Sciences	a. Dr. Ali Mohamed Yassin	3
Kinetic learning / basketball	University of Maysan/Faculty of Physical Education and Sports Sciences	a. Dr. Ali Aziz	4

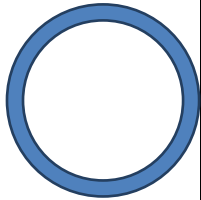
Week: The first unit model

The objective of the educational unit:- Learn the skill of peaceful shooting

Unit No. (1) Tools as a basket, whistle, day and date 25/3/ 2022

Venue: A hall in the hall, Wissam Oreibi

The number of students (20) The time of the unit is 45 minutes

Calendar	Styles and formations	time	Content	parts the lesson
<p>note Changes in the students' faces, both physically and psychologically</p> <p>Encouraging students to perform and supporting them psychologically</p>	<p>XXXXXXXXXXXXXXXXXXXXX Running around the field XXXXXXXXXXXXXXXXXXXXX</p> <p>Students stand in the form of locomotives XXXXXXX T) XXXXXXXX XXXXXXX XZXXXXXX</p>	<p>5 d</p> <p>5 d</p>	<p><u>Introduction:</u> *Light running around the field with moving the arms and legs * Running with alternate touching of the ground with the hands. <u>exercises:</u>) -Standing) jumps on spots and squat legs (4) reps) -Stand-up) twisting the head to both sides in succession (4 repetitions))standing - open) rotate arms forward and backward (freestyle)) -Standing - open (.Stability of the middle)Leaning the torso forward and backward) (4 repetitions)) -Standing) Bend and extend the knees (4) .gear</p>	<p>introductory part</p>
<p>Note correcting the errors of the form when students .</p> <p>note Technical performance when applying the skill.</p>	<p>XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX</p> 	<p>5 d</p> <p>25 d</p>	<p><u>educational activity:</u> Clarification of the technical aspects of the skill of peaceful shooting by the subject teacher Giving an illustration of the exercises to the students.</p> <p><u>Application activity:</u> The first exercise:- The <u>students</u> divide into z Two groups , the distance between them is 3 m, and the two groups perform the pectoral handling among themselves in a horizontal and straight manner, and then we increase the distance between them to a distance of 5 m to perform the skill of peaceful shooting circle so that The second exercise: - Draw a large its circumference accommodates the standing of students. All students stand on the all the and circumference of the circle with equal .appropriate distances The ball is given to one of the students, and when he hears one whistle, he hands the ball to the colleague standing to the right, but when he hears two whistles, he changes the direction of handling to the left</p>	<p>The main part</p>
<p>Note how prepared the students are for the next lesson.</p>	<p>X XXXXXXXXXXXXXXX <u>locomotives</u></p>	<p>5 d</p>	<p>.Perform vibrating movements to relax * Sports equipment is back * ..Performing the greeting of departure *</p>	<p>final piece</p>