

## THE EFFECT OF USING COMBINED PHYSICAL-SKILL EXERCISES TO DEVELOP MOTOR SPEED FOR SOME BASIC FOOTBALL SKILLS

**Muataz Riyadh Abdulhussein AL-Yasar, Rasool Falih Imhalhal AL-Fanooni**

Technology University, Iraq

[Muataz.r.abdulhussein@uotechnology.edu.iq](mailto:Muataz.r.abdulhussein@uotechnology.edu.iq) [rasool9977r@gmail.com](mailto:rasool9977r@gmail.com)

### Abstract

The research aims to develop motor speed for some basic skills. The researcher used the experimental approach to achieve the research requirements. The research sample, which was chosen randomly, consisted of (20) players, with a percentage of (57.14%) out of (35) players representing the research community, which is a total Players of the Al-Zawraa reserve football team, aged (20-22 years) for the sports season (2023/2024). The researcher conducted a reconnaissance experiment and verified the validity of the tests and their scientific characteristics (coincidence, consistency and objectivity). Appropriate statistical treatments were conducted. The researcher recommends adopting the selected tests as they are an important criterion for measuring the players' physical abilities. And skills and correct their path by developing appropriate exercises

**Keywords:** complex physical skill exercises, motor speed, basic skills

### Introduction

The majority of countries in our modern era are striving to emerge in various fields, most notably the sporting aspect, as this aspect has received great attention. Many countries have become famous through their impressive sporting achievements, and it has become clear that sporting achievements are evidence of the advancement and development of countries, and this development was not the result of coincidence, but rather was As a result of relying on related sciences such as training science, physiology, biomechanics, and other sciences, these sciences have interconnected relationships with each other, which makes them an essential role in developing the level of the game. The modern game of football requires comprehensive preparation of the players, whether related to skill, physical, tactical, psychological, mental or social preparation, because these factors help the players to make skillful use and skillful application of the arts of the game, and raise the level of the players to the point of integration, which has a positive impact on the game. The team's successes and achievements. The multiplicity and diversity of basic skills in football has made the technical preparation of these skills take more attention and always search for new training methods aimed at developing and developing these skills. Compound exercises are one of the most important exercises in the game that work to develop the skill aspect of the football player, as they are similar to the player's duty in competition conditions and combine more than one skill in one exercise. They are also performed during the different stages of preparation, in

addition to their diversity, which helps to increase the elements of desire and excitement when practicing them (Muhammad Abdo Saleh and Mufti Ibrahim, 1994)

Accordingly, this research, whose importance is evident in the use of complex physical skill exercises to develop motor and translational speed for some basic football skills for reserve teams aged (20-22 years(

### **Previous studies**

A study (Dia Naji Abboud, 2003) on the effect of interfering compound exercises in developing some basic skills in football, the aim of which was to find out the effect of intervening compound exercises on developing skills (handling, scoring, running with the ball, and suppression) There is another study (Wameed Shamil Kamel, 2003 AD) on the effect of special exercises on developing speed, agility, and motor speed and their relationship to some basic skills in football. The aim of the study was to identify the effect of special exercises on the elements of speed, agility, and motor speed, and on some basic skills in football (handling, rolling). Scoring) and learning about the relationship between speed, agility, motor speed and some basic football skills.

### **The Problem**

Achieving good performance and the desired result and achieving victory in football requires the compatibility of very many requirements, including a high level of interconnected and overlapping performance of the physical and skill abilities among them, as physical abilities are the basic foundation upon which the development of the psychological, skill, tactical and social aspects is built. Because the researcher is a football player, through field monitoring and watching matches, he noticed that there is a weakness in the motor speed of some basic football skills (handling, dribbling, scoring) among most of the reserve players of Baghdad clubs. In light of this, the researcher followed the training units of some reserve teams and met with some of the teams' coaches. Al-Radeef. According to the information collected by the researcher, he noted that most teams carry out complex exercises, but in isolation from the motor speed of the performance, which leads to a decrease in the rapid performance of basic skills, especially handling, dribbling and scoring.

### **Search procedures**

Research Methodology: It is known that every research has a special method that the researcher follows to reach scientific facts. The researcher chose the experimental method with the same design as the two groups (control-experimental) because it suits the nature of the problem that the researcher wants to address. Research sample: The researcher randomly chose the research sample, which amounted to (20) players, with a percentage of (57.14%) out of (35) players representing the research community, who are the total players of the Al-Zawraa Football Club reserve team, aged (20-22 years) for the sports season. (2023/2024) The research sample consisted of (20) players who were randomly divided into two groups, one of which was experimental, which amounted to (10) players, and the other was control, which also amounted to (10) players.

### **Search tools and devices**

Research tools mean the means through which the researcher can collect data and solve his problem to achieve the research goals, whatever those tools may be.

( Wajih Mahjoub, 1988)

**The researcher used the following methods to collect information:**

1. Personal interviews
2. Arab and foreign sources
3. A form for determining the most appropriate tests to measure skill
4. The Internet
5. Data registration form

**The researcher used the following devices and tools**

1. Measuring tape
2. Cones
3. Footballs
4. Electronic stopwatch
5. A terrace with a width of 3 m
6. Adhesive tape

**Choosing the most appropriate test to measure skill**

Prepare tests Measurement is one of the most important means of evaluating players in general, whether it is determining the level of their general and specific physical abilities and the specialized activities that they practice, or with regard to the level of technical performance of those activities, whether they are team or individual games or competitions.

(Bastawisi Ahmed, 1999) (Qais Naji and Bastawisi Ahmed, 1987) add that testing is a method that requires research methods such as measurement, observation, experimentation, investigation, identification, interpretation, reproduction, and division. The researcher prepared a questionnaire to choose the most appropriate test to measure the skill from among (3) tests prepared for each skill.

**Exploratory experience**

The exploratory experiment is a mini-experiment similar to the real experiment. The researcher conducted the exploratory experiment on (10/10/2023) on a sample of (10) players other than the research sample, who are from the research community. For the researcher, the exploratory experiment is an exercise in identifying for himself the negatives and positives that he may encounter while conducting the tests in order to avoid them in the future. The researcher has applied the tests nominated from the questionnaire form.

**First test**

- Test title: Handling towards a terrace.
- The aim of the test: to measure motor speed (performance speed).
- Tools used: (whistle, stopwatch, bench, football, measuring tape).

Method of performance: When the player hears the whistle, he hits the ball on the terrace from a distance and continues handling after the ball bounces from the terrace for a period of (30 seconds).

Registration: The number of handlings performed within (30 seconds) is counted.

(All-In Flash, 1999)

### **Second test**

- Test title: Test of rolling the ball between (10) signs.
- The purpose of the test: to measure movement ability.
- Tools used: (football, stopwatch, 10 bars of appropriate height).

How to perform: The player stands with the ball behind the starting line, and when the start signal is given, he runs with the ball between the posts. He can use the right or left foot, or both.

Number of attempts required: The player is given two attempts, and the best is counted. Another attempt may be given if an unintended error occurs by the player, such as passing two signs together or one of the signs falling.

Recording: The time taken back and forth is calculated and the time closest to 1/100 of a second is recorded.

(Firat Jabbar Saad, 2001)

### **Third test**

Test title: Shooting against the wall

The goal of the test: to measure scoring speed (the largest number of correct times in 30 seconds).

Tools used: (5 footballs, a stopwatch, a measuring tape, a wall with a rectangular goal drawn, measuring 6m wide and 3m long).

Method of performance: The player kicks the ball in any way with his foot to direct it towards the wall with the goal marked on it as quickly as possible. If the ball goes far from the test place, the player can use one of the reserve balls. The player can kick the ball while it is in the air or on the ground, provided that it is done behind the starting line. The idea of the test. It is based on speed or accuracy and control of the ball. In order for it to be counted as kicking the ball away from the starting line, the player must recover it with his feet or hands or return it behind the line before continuing the test.

Scoring: The player's score is calculated based on the total points he obtains from the largest number of correct kicks within (30 seconds). (Imad Kazem Al-Atwani, 1999)

### **Presentation, analysis and discussion of results**

In order to achieve the goal of the research and its hypothesis of knowing the effect of complex exercises in developing some basic skills and among the research sample, the researcher presented, analyzed and discussed the results that he reached to find out the reality of the differences and their statistical significance in the pre- and post-test of basic skills for the research sample.

Values of the arithmetic mean, standard deviation, and skewness coefficient in the study variables for the pre-post test for the control and experimental groups.

Table No. (1)

Torsion coefficient	A	s	the test	measruin g unit	Variable s	T	
0.88	1.51	16.60	Triba l	degree	Handlin g	1	Control group
0.60	0.92	16.90	after me				
0.60	1.47	17.90	Triba l	time	Rolling	2	
0.22	0.83	17.83	after me				
1.25	1.64	13.90	Triba l	time	Scoring	3	
1.34	1.29	15.70	after me				
1.35	1.17	17.60	Triba l	degree	Handlin g	4	Experimenta l group
0.23	0.92	19.80	after me				
0.52	1.47	18.90	Triba l	time	Rolling	5	
0.18	0.83	16.90	after me				
0.61	1.64	13.60	Triba l	time	Scoring	6	
0.22	1.29	15.90	after me				

Through Table (1), we notice that the value of the arithmetic mean is (16.60), the standard deviation (1.51), and the skewness coefficient (0.88). The handling skill in the pre-test of the control group or the post-test. We notice the value of the arithmetic mean is (16.90), the standard deviation (0.92), and the skewness coefficient ( 0.60). The arithmetic mean for the rolling skill was (17.9), the standard deviation was (1.47), and the torsion coefficient was (0.60). As for the post-test for the rolling skill, we note that the arithmetic mean value was (17.83), the standard deviation (0.83), and the torsion coefficient (0.22). As for the scoring skill, its arithmetic mean reached (13.90), the standard deviation (1.64), and the skewness coefficient (1.25). As for the post-test, its arithmetic mean reached (15.70), the standard

deviation (1.29), and the skewness coefficient (1.34). The security of the experimental group reached its companion mean in the pre-test. The handling skill (17.60), the standard deviation (1.17), and the torsion factor (1.35). The arithmetic mean for the post-test reached (1980), the standard deviation (0.92), and the standard deviation (0.23). As for the critical skill, its arithmetic mean in the pre-test reached (18.90) and the standard deviation. (1.47) and the skewness coefficient (0.52), while in the post-test the arithmetic mean was (16.90), the standard deviation was (0.83) and the skewness coefficient was (0.18). As for the scoring skill in the pre-test, its mean was (13.50), the standard deviation was (1.64) and the skewness coefficient ( 0.61) and the Lemmy test had a mean (15.90), standard deviation (1.29), and skewness coefficient (0.22).

Displaying the results of the pre- and post-test for the control group (T value), significance value, significance, and degree of freedom

Table No. (2)

indication	Indicative value	Degree of freedom	Calculated T value	Posttest		Pretest		Variables
				A	s	A	s	
Insignificant	0.520	9	0.669	1.20	16.90	1.51	16.60	Handling
Insignificant	0.338	9	1.012	0.88	17.83	0.98	17.9	Rolling
moral	0.002	9	4.323	1.42	51.79	0.99	13.90	Scoring

From Table (2) we notice that the value of the calculated between the pre- and post-tests of handling skill is (0.669) and the significance value is (0.520). The significance was not significant under a degree of freedom (9) and an error level of 5%. As for the value of (1) calculated between the pre- and post-tests For the rolling skill (1.012), the significance value was (0.338), and the significance was insignificant under a degree of freedom (9) and an error level of .5%. The value for (1) the scoring skill was (4.323) and the significance value was (0.002), and the significance was significant under a degree of freedom (9). The error level is less than 5%.

Displaying the results of the pre- and post-test for the experimental group (T value), significance value, significance, and degree of freedom

Table No. (3)

indication	Indicative value	Degree of freedom	Calculated T value	Posttest		Pretest		Variables
				A	s	A	s	

		m						
moral	0.002	9	4.49	0.9 2	19. 80	1.1 7	17. 60	Handli ng
moral	0.000	9	5.42	0.8 3	16. 95	1.4 7	18. 90	Rollin g
moral	0.000	9	10.77	1.2 9	15. 90	1.6 4	13. 60	Scorin g

From Table (3), we notice that the t value calculated between the pre- and post-tests of handling skill is (4.49) and the significance value is (0.002). The significance was significant under a degree of freedom (9) and an error level of less than 5. As for the t-value calculated between the pre- and post-tests For the rolling skill (5.42), the significance value was (0.000), and the significance was significant under a degree of freedom (9) and the error level was less than 5%. The value for (1) the scoring skill was (10.77), and the significance value was (0.000), and the significance was significant under a degree of freedom (9). The error level is less than 5%.

Displaying the value of (T), significance value, significance, and degree of freedom for the post-test for the control and experimental groups.

Table No. (4)

indicatio n	Indicati ve value	Degr e of freed om	Calcula tedT value	Experim ental group		Control group		Variab les
				A	s	A	s	
moral	0.000	18	6.076	0. 92	19. 80	1. 20	16. 90	Handli ng
moral	0.035	18	2.28	0. 83	16. 95	0. 88	17. 83	Rollin g
Insignific ant	0.74	18	0.330	1. 29	15. 90	1. 42	15. 70	Scorin g

Table No. (4) shows the results of the research sample for the post-test for the control and experimental groups. The value of (T) for the handling skill reached (6.076), the value of significance (0.000), the significance is moral and the degree of freedom (18), and under the 5% error level, the value of (T) for the skill reached The roll is (2.28), the significance value is (0.035), the significance is significant, and the degree of freedom is (18) and under the 5% error level, or the (T) value for the scoring skill is (0.330), the significance value is (0.745), the significance is not significant, and the degree of freedom is (18) under the 5% error level.

**Discussing the results and variables of the research**

By processing the results of the research variables studied with special statistical means, the researcher found that the emergence of significant differences between the pre- and post-tests in the research sample of the experimental group. The researcher attributes the reason for this to the exercises prepared by him according to scientific foundations, the continuity of the exercises, the diversification of the exercises, and the motivation of the players. As for the appearance of significance in the scoring test for the control sample in the pre- and post-tests, the researcher attributes the reason for this to the coach's interest in using repeated exercises for the scoring skill and giving it a higher percentage than other skills and the players performing scoring on the goal at all times of the training units as it is the most beautiful and decisive skill in the training units and matches. Official and great joy is given when it succeeds. Regarding the post-tests for the control and experimental groups and the appearance of significance in the handling and rolling skills, the researcher attributes the reason for this to the fact that the prepared exercises took into account the balance between all skills and the performance of exercises with high accuracy while renewing the times of each repetition according to the goal previously specified in the training unit and giving an appropriate rest period using the methods. Modern science (hospitalization) As for scoring, the reasons for it are informative

### **Conclusions**

Based on the research results obtained, the researcher reached the following conclusions:

1. It appears that the result of using (physical-skills) exercises is the best and usual way to develop some basic football skills.
2. The use of combined exercises (physical-skills) has positively affected the results of the experimental group's post-tests in some research skills.
3. The training curricula prepared for the control group did not lead to the development of skills (handling - dribbling - scoring).

### **Recommendations**

Through the research objectives, hypotheses, analysis and discussion of the statistical results, the researcher recommends the following

1. The researcher adopted the use of combined exercises (physical - skill) within the training curriculum designated for the Al-Zawraa Reserve Club for ages (20-22) years in football.
2. Paying attention to the method of using combined exercises (physical - skill) because it helps increase the players' awareness of the ball and distance, which leads to learning the skill better.
3. Conduct similar studies on other skills and link them to the physical aspect to determine the effect of using combined exercises (physical - skill) in them for the clubs' reserve teams.
4. Opening training courses for coaches in the Central Iraqi Football Federation to hone the talents of coaches.



## References

1. abdel-nabi, m., taqi, b. m., & hammood, a. h. (2020). leadership patterns for university student activities managers according to the blake and moton model (the managerial grid). *sciences journal of physical education*, 13(7), 493–501.
2. abdul kareem, m., & qasim, s. (2023). the impact of a training curriculum to develop speed endurance in passing the readiness test during the competition period for the arena referees of the. *journal of physical education*, 35(3), 770–757. [https://doi.org/10.37359/jope.v35\(3\)2023.1489](https://doi.org/10.37359/jope.v35(3)2023.1489)
3. ahmed amer abdul hussein, m. d. a. s. s. (2020). he use of the electronic system with special exercises and its impact in the development of shooting on the basketball for young people. *journal mustansiriyah of sports science*, 2(4), 24–29.
4. ahmed fadhil farhan mohammed jawad kadhim, g. m. s. (2016). the effectiveness of injury prevention program on reducing the incidence of lower limb injuries in adolescent male soccer players. *injury prevention*, 22(suppl 2), 346. <https://www.proquest.com/openview/fd995719bc359d2e05fa6fe346bed0f6/1?pq-origsite=gscholar&cbl=2031963>
5. al, a. h. h. a. n., fatlawi, a. m. a. a., & al-fatlawi, h. a. a. n. (2023). the effect of using adhesive tapes (kenzo tape) in rehabilitating the shoulder muscles of throwing players in paralympic athletics events. *pakistan heart journal*, 56(2), 140-146.
6. al-azawi, s. m., & kathom, m. j. (2012). effect of consuming sodium bicarbonate on the numeric value of the accumulation of lactic acid levels in the blood after maximum physical effort between gymnastics and judo players. *journal of physical education*, 24(4).
7. ali al-attar, l. s., & jari, h. s. (2023). the effect of special exercises according to a designed device in developing the performance of a kinetic chain on the balance beam device. *revista iberoamericana de psicologia del ejercicio y el deporte*, 18(3), 254–258.
8. ali, h., & khalid, o. (2018). effect of antioxidants on the achievement level of national weightlifting league. *physical education journal*, 30(2), 395–407. [https://doi.org/doi.org/10.37359/jope.v30\(2\)2018.372](https://doi.org/doi.org/10.37359/jope.v30(2)2018.372)
9. ali, h., & qasim, s. (2023). the effect of game – like exercises on the development of some physical abilities and fundamental skills in futsal. *journal of physical education*, 35(2), 563–575. [https://doi.org/10.37359/jope.v35\(2\)2023.1479](https://doi.org/10.37359/jope.v35(2)2023.1479)
10. ali, n. k., amish, s. r., & kamil, w. s. (2022). an analytical study of the offensive aspect of the iraqi national team players in the 2015 arabian gulf championships and the 2018 asian nations in football. *revista iberoamericana de psicologia del ejercicio y el deporte*, 17(4), 221–223.
11. ali, y. s., & khlef, m. m. (2021). a historical study of iraqi paralympic participations in ipc world championships athletics from 1990 till 2017. *journal of physical education*, 33(2).

12. ali, y. s., abdulhussein, a. a., & jassim, a. h. (2023). employment of resistance exercise in accordance to variable biomechanical markers to develop the strength and the speed of arm muscles of water polo players. *international development planning review*, 22(2), 589-605.
13. al-qaisi, t. d. s. (2020). statistical methods for calculating the validity and reliability of tests and measures using ibm spss statistics version24. dar amjad for publishing and distribution, the hashemite kingdom of jordan.
14. al-qaisi, t. d. s. (2020). statistical methods for calculating the validity and reliability of tests and measures using ibm spss statistics version24. dar amjad for publishing and distribution, the hashemite kingdom of jordan.
15. al-uqabi, j. m. h., & al-maliki, m. a. h. the effectiveness of electronic teaching using the learning platform (g-meet) according to the six hats in lateral thinking in futsal. *turkish journal of physiotherapy and rehabilitation*, 32, 2.
16. ati, m. m., abd almajed, t. s., abdulghafoor, q. h., atiyah, h. s., qassem, s., hassan, m., ... & sadiq, a. (2024). the effect of suggested exercises on improving the kinesthetic response of soccer goalkeepers. *techhub journal*, 7, 28-41.
17. aziz, a. a., & zoon, e. a. (2021). contribution of the added resistors to the strength endurance test for achievement a 1500-meter run for youth runners. *indian journal of forensic medicine & toxicology*, 15(3).
18. batusi ahmed (1999). *foundations and bodies of sports training*, (cairo, dar al-fikr al-arabi)
19. curby, d., ali, a., & khudair, g. (2024). a comparison of some important biochemical indicators according to escalating physical effort till fatigue for elite freestyle wrestlers, 800m runners, and 200m freestyle swimmers. *journal of physical education*, 36(1), 184–166. [https://doi.org/10.37359/jope.v36\(1\)2024.2065](https://doi.org/10.37359/jope.v36(1)2024.2065)
20. diaa naji abboud (2003). the effect of dance tactics on developing some basic football skills) master's thesis
21. dr. zina abdul-salam, s. j. (2020). show the effect of the physical education lesson while using the interactive ground games with the 4th grade students to enhance their kinetic abilities. *modern sport*, 19(2). <https://doi.org/doi.org/10.54702/msj.2020.19.2.0057>
22. easa, f. a. w., shihab, g. m., & kadhim, m. j. (2022). the effect of training network training in two ways, high interval training and repetition to develop speed endurance adapt heart rate and achieve 5000 meters youth. *revista iberoamericana de psicología del ejercicio y el deporte*, 17(4), 239–241.
23. fadel, g. a., & kadem, m. j. (2021). youth and sports forums' administration and their relationship with baghdad's youth and sport directorates forum organizational culture from workers' point of view. *journal of physical education*, 33(3), 1–15. [https://doi.org/10.37359/jope.v33\(3\)2021.1182](https://doi.org/10.37359/jope.v33(3)2021.1182)

24. fathi, m. k. (2021). evaluation the application of asian licensing laws in iraqi soccer primer. *journal of physical education*, 33(4).
25. fathi, m. k. (2022). design and rationing of a test to measure the accuracy of shooting by jumping forward from the goal area line as a result of the quick attack of handball players. *revista iberoamericana de psicología del ejercicio y el deporte*, 17(5), 294-298.
26. flash all over (1999). a special effect on developing motor speed and its relationship to basic football skills, master's thesis, university of baghdad, college of physical education
27. flayyih, m. s. (2020). transition of learning between high and fast spike skills in volleyball. *international journal of psychosocial rehabilitation*, 24(04).
28. full universal flash (2003). special exercises in developing speed, agility, and speed and their relationship to basic foot skills, master's thesis
29. furat jabbar saad (2001). the effect of using various aspects in training strengths on inspiration, skill, and plans in football. doctoral thesis, university of baghdad, college of physical education.
30. ghanim, h. i., & mahmood, i. (2021). the effect of a rehabilitation program using a tens device for the treatment of pain and impaired mobility of the wrist and limbs joint in basketball players. *revista iberoamericana de psicología del ejercicio y el deporte*, 16(3), 7.
31. gree, r. a. a., & attiyah, a. a. (2022). the effect of the hiit training curriculum on developing some of the kinetic capabilities and combat adequacy of iraqi special forces fighters. *revista iberoamericana de psicología del ejercicio y el deporte*, 17(4), 224–227.
32. hadi, a. a., & naser, a. j. j. (2021). the effect of electronic apparatus on developing balance in national center for gifted in boxing and basketball. *journal of physical education*, 33(2).
33. hadi, a., & j. (2019). the effect of using proposed tools on learning kill shot in young squash players. *journal of physical education*, 31(3), 124–134. [https://doi.org/10.37359/jope.v31\(3\)2019.867](https://doi.org/10.37359/jope.v31(3)2019.867)
34. halahatiyah, m., alhamayd, q. a., qasimkhalaf, s., amerabdulhussein, a., jawadkadhim, m., kohchoonlian, d., ... & yahyafaris mohsen, g. (2024). extrapolation of the machine and its efficiency in developing the skill performance and accuracy of dribbling in youth football. *international development planning review*, 23(1), 1037-1047.
35. hamza muhammad al-bahadli, s. a.-z., & ali al-tamimi, p. d. a. f. (2022). the effect of a rehabilitation program for rhomboid muscles (shoulder) and fibrous strain on young and advanced wrestlers (free and roman). *international journal of research in social sciences & humanities*, 12(02), 150–176. <https://doi.org/10.37648/ijrssh.v12i02.010>

36. hashem, h., & qasem, s. (2021). the effect of compound exercises on added weights on some skill abilities in youth soccer players aged 17–19 years old. *journal of physical education*, 33(3).
37. hasnawi, z. a. k. (2022). the effect of exercises using some training methods to help develop some physical and consensual abilities of young football offensive linemen. *misan journal for physical education sciences*, 26(26).
38. hassan, a., & mahmoud, i. a. (2023). the effect of the perkins-blyth model on learning some compound skills in soccer for second intermediate students. *journal of physical education*, 35(1).
39. hatim, z. t., & salih, m. (2022). the effect of special exercises using a designer device and added relative weights to develop some of the physical abilities of volleyball players. *journal of physical education*, 34(2).
40. hiama, a. h., & al-asadi, h. h. (2023). effect of the reality of transformational leadership of school principals from the point of view of physical education teachers of baghdad-rusafa education directorates. *mustansiriyah journal of sports science*, 5(3), 20-29.
41. hmood, j. t., & al-reda, f. m. a. (2022). effect of a counseling program for the development of sportsmanship among basketball players for the premier league. *international journal of health sciences*, 6(march), 11051–11059. <https://doi.org/10.53730/ijhs.v6ns1.7652>
42. husaein, s. a., & salman, a. s. (2020). the effect of special exercises on some kinetic variables of performing double backflip on parallel bars in artistic gymnastics for young gymnastics. *journal of physical education*, 32(1).
43. husaein, s. a., & salman, a. s. (2020). the effect of special exercises on some kinetic variables of performing double backflip on parallel bars in artistic gymnastics for young gymnastics. *journal of physical education*, 32(1).
44. husein, m. (2012). platform proposal impact in the development of some special physical abilities in the level of achievement of ran (1500) meters of the young players in athletics. *journal of physical education*, 24(3).
45. ibrahim, h., jawad, m., & moyad shihab, g. (2006). the impact of the use of patch style paper and pencil in the development of some motor skills in gymnastics. *journal of physical education*, 15(2).
46. imad kazem al-atwani (1999). great success in a training program in developing skill development, master's thesis, university of baghdad, college of physical education
47. jamal, a., & muayed, g. (2023). the effect of using an auxiliary device in teaching the spindle skill on the pommel horse in the artistic gymnastics for juniors. *journal of physical education*, 35(2), 413–421. [https://doi.org/10.37359/jope.v35\(2\)2023.1456](https://doi.org/10.37359/jope.v35(2)2023.1456)
48. jassim, a. h., & ramadan, a. j. (2019). the effect of using proposed tools on learning kill shot in young squash players. *journal of physical education*, 31(3).

49. jawad kadhim, m., & mahmood, h. (2023). the effect of special exercises for some physical, motor and electrical abilities accompanied by symmetrical electrical stimulation in the rehabilitation of the muscles of the arms of patients with simple hemiplegic cerebral palsy. *journal of physical education*, 35(3), 618–593. [https://doi.org/10.37359/jope.v35\(3\)2023.1515](https://doi.org/10.37359/jope.v35(3)2023.1515)
50. jawad kadhim, m., & mousa, a. (2024). the use of an innovative device to improve the efficiency of the posterior quadriceps muscle of the man after the anterior cruciate ligament injury of advanced soccer players. *journal of physical education*, 36(1), 239–214. [https://doi.org/10.37359/jope.v36\(1\)2024.1934](https://doi.org/10.37359/jope.v36(1)2024.1934)
51. jawad kadhim, m., & salman ahmed, w. (2016). evaluating training program using physiological and biochemical, and physical indicators on national artistic gymnastics league for men. *journal of physical education*, 28(3), 116-129.
52. jawad kadhim, m., & salman ahmed, w. (2016). evaluating training program using physiological and biochemical, and physical indicators on national artistic gymnastics league for men. *journal of physical education*, 28(3), 116-129.
53. kadhim, m. j. (2012). the effects of drinking water, magnetized through training on some biochemical variables in blood. *journal of physical education*, 24(1), 453–480.
54. kadhim, m. j. (2023). evaluation of the existence of gender disparities in iraq. *international journal of social trends*, 1(1), 10-16.
55. kadhim, m. j. (2023). examining the relationship between social classes and the culture of poverty: a case study. *international journal of social trends*, 1(1), 23-27.
56. kadhim, m. j., & mahmood, h. a. (2023). the effect of special exercises for some physical, motor and electrical abilities accompanied by symmetrical electrical stimulation in the rehabilitation of the muscles of the arms of patients with simple hemiplegic cerebral palsy. *journal of physical education*, 35(3).
57. kadhim, m. j., & mahmood, h. a. (2023). the effect of special exercises for some physical, motor and electrical abilities accompanied by symmetrical electrical stimulation in the rehabilitation of the muscles of the arms of patients with simple hemiplegic cerebral palsy. *journal of physical education*, 35(3).
58. kadhim, m. j., shihab, g. m., & zaqair, a. l. a. a. (2021). the effect of using fast and direct cooling after physical effort on some physiological variables of advanced football players. *annals of the romanian society for cell biology*, 25(6), 10014-10020.
59. kadhim, m. j., shihab, g. m., & zaqair, a. l. a. a. (2021). the effect of using fast and direct cooling after physical effort on some physiological variables of advanced football players. *annals of the romanian society for cell biology*, 25(6), 10014-10020.
60. kanger hamdan, r., & sukny, h. s. (2017). exercises skill according to private analysis of the game and its impact on the effectiveness of performance rebuff players skill of the national center for the care of sports talent handball. *karbala journal of physical education sciences*, 4(1).

61. kazim, m. j., zughair, a. l. a. a., & shihab, g. m. (2019). the effect of zinc intake on the accumulation of lactic acid after cooper testing among football premier league referees. *sciences journal of physical education*, 12(5).
62. kazim, m. j., zughair, a. l. a. a., & shihab, g. m. (2019). the effect of zinc intake on the accumulation of lactic acid after cooper testing among football premier league referees. *sciences journal of physical education*, 12(5).
63. khedir, s. q. (2018). the legal protection and regulation of sponsorship rights in english football (doctoral dissertation, university of leeds).
64. kumar, r., & amer, a. (2024). mental arrangement in cognitive processes, processing information accurately, and performing the skill of shooting from both sides in basketball. *journal of physical education*, 36(1), 197–185. [https://doi.org/10.37359/jope.v36\(1\)2024.2060](https://doi.org/10.37359/jope.v36(1)2024.2060)
65. kzar, l. f. h., ali, y. s., sabah, w., & al-khafaji, m. (2020). the effect of aerobic training according to genetic diversity on some biochemical variables and the digital level to reduce sports injuries in swimming. *international journal of psychosocial rehabilitation*, 24(09).
66. lian, d., & atiyah, h. (2024). physical activity, sleep and health-related quality of life (hrqol) for college students in iraq. *journal of physical education*, 36(1), 213–198. [https://doi.org/10.37359/jope.v36\(1\)2024.2064](https://doi.org/10.37359/jope.v36(1)2024.2064)
67. lian, d., & atiyah, h. (2024). physical activity, sleep and health-related quality of life (hrqol) for college students in iraq. *journal of physical education*, 36(1), 213–198. [https://doi.org/10.37359/jope.v36\(1\)2024.2064](https://doi.org/10.37359/jope.v36(1)2024.2064)
68. mahmood, h. a., & kadhim, m. j. (2023). special exercises for some physical, kinetic and electrical abilities accompanied by symmetrical electrical stimulation in the rehabilitation of the muscles of the legs for patients with simple hemiplegic cerebral palsy. *pakistan heart journal*, 56(1), 580-595.
69. mahmood, h. a., mohammed, p., & kadhim, j. (2023). special exercises for some physical , kinetic and electrical abilities accompanied by symmetrical electrical stimulation in the rehabilitation of the muscles of the legs for patients with simple hemiplegic cerebral palsy. *pakistan heart journal*, 56(01), 580–595. <http://pkheartjournal.com/index.php/journal/article/view/1291>
70. majid, s., & jawad, m. (2023). effect of consuming sodium bicarbonate on the numeric value of the accumulation of lactic acid levels in the blood after maximum physical effort between gymnastics and judo players. *journal of physical education*, 24(4), 30.
71. majid, s., & jawad, m. (2023). effect of consuming sodium bicarbonate on the numeric value of the accumulation of lactic acid levels in the blood after maximum physical effort between gymnastics and judo players. *journal of physical education*, 24(4), 30.
72. matrood, m. h., & alshamma, h. f. (2019). the effect of breathing exercises on relation and self-talk on developing ambition level according to vts-sport and achievement in long distance runners. *journal of physical education*, 31(3).

73. moayed, a., moayed, g., & jawad, m. (2019). the effect of group investigation model on learning overhead and underarm pass in volleyball. *journal of physical education*, 31(2), 176–181. [https://doi.org/10.37359/jope.v31\(2\)2019.926](https://doi.org/10.37359/jope.v31(2)2019.926)
74. mohammed, k. s., flayyih, m. s., & rumeeh, a. f. (2020). building and codifying a scale of the level of tactical performance of advanced volleyball players. *international journal of psychosocial rehabilitation*, 24(10).
75. mondher, h. a., & khalaf, s. q. (2023). the effect of compound exercises with the intense method and the training mask on the development of some physical abilities and the level of skillful performance of futsal players. *pakistan heart journal*, 56(01), 310–323.
76. mousa, a. m., & kadhim, m. j. (2023). nmusing an innovative device to improve the efficiency of the anterior quadriceps muscle of the injured knee joint after surgical intervention of the anterior cruciate ligament in advanced soccer players. *semiconductor optoelectronics*, 42(1), 1504–1511.
77. muhammad abdo saleh al-wahshi and mufti ibrahim (1994). *the basics of football*, 1st edition (cairo, dar al-fikr al-arabi)
78. naif, a. s., & atia, m. a. h. (2020). the effect of constructive learning model on cognitive achievement and learning dribbling skill in soccer for secondary school students. *journal of physical education*, 32(2).
79. naser, m. a., & rashid, a. d. (2022). the effect of compound exercises for the arm least used in developing the accuracy of the passing skill of the handball for ages (15-17) years. *journal of algebraic statistics*, 13(3), 661-666.
80. nasser, a. j., & ahmed, d. m. (2022). the effect of battle rope exercises on increasing the number of single, double and multiple punches in elite boxing. *revista iberoamericana de psicología del ejercicio y el deporte*, 17(5), 260-263.
81. nasser, m. a. h., & mahmoud, i. a. (2023). the impact of the needham model on learning the skills of dribbling and handling in football for students. *wasit journal of sports sciences*, 13(1).
82. nasser, m. a., & rashid, a. d. (2022). the effect of compound exercises on the non-dominant arm on the development of scoring in handball for players aged (15–17) years old. *journal of physical education*, 34(4).
83. nazar, t., & aladdin, m. (2018). the effect of small games on learning floor exercises in artistic gymnastics for children with learning disabilities aged 7 years old. *journal of physical education*, 30(2), 350–365. [https://doi.org/10.37359/jope.v30\(2\)2018.369](https://doi.org/10.37359/jope.v30(2)2018.369)
84. nimma, f. k., & dawod, s. s. (2020). the effect of using educational games and cooperative learning on learning some floor exercises in artistic gymnastics for 5th grade pupils. *journal of physical education*, 32(1).
85. prof. dr. mohammed jawad kadhim , prof. dr.ghadah muayad shihab, a. l. a. a. z. (2021). the effect of using fast and direct cooling after physical effort on some physiological variables of advanced football players. *annals of the romanian society*

- for cell biology, 25(6), 10020–10020.  
<https://annalsofrscb.ro/index.php/journal/article/view/7336>
86. qais naji and bastawisi ahmed (1987). tests and principles of statistics in the mathematical field, baghdad (higher education press)
  87. qasim khalif, s. (2014). the use of physical exercises of mind (knowledge) to develop the level of performance of the rulers of women's football. *journal of physical education*, 26(1), 1-13.
  88. redha, h. h. a., & sekhi, h. s. (2020). the effect of refereeing situations using communication device on some environmental perceptions of volleyball referees. *journal of physical education*, 32(3).
  89. sabbar, o. s., jawad, a. m., & jabbar, m. a. (2023). the history of clubs?: participation in the iraqi volleyball premier league and its results for the period from (1991 to 2022). *revista iberoamericana de psicología del ejercicio y el deporte*, 18(3), 288-290.
  90. sabhan, h., & abd al-hussein, d. (2015). visual vision, and their relationship in the performance of high-spike diagonal and rectum skill accuracy volleyball. *journal of physical education*, 27(4).
  91. saleh, y. m., & ali, y. s. (2022). special exercises using various means to develop endurance (speed, strength) and the achievement of the 100m freestyle swimming for the disabled s10 class men. *international journal of early childhood special education*, 14(3).
  92. salih, i. h., yaseen, a. m., naseer, k. j., attieh, a., & kadhim, m. j. (2024). the impact of competitive speed exercises on junior boxers'effectiveness of skill performance and counterattack speed. *international development planning review*, 23(1), 149-162.
  93. salih, i. h., yaseen, a. m., naseer, k. j., attieh, a., & kadhim, m. j. (2024). the impact of competitive speed exercises on junior boxers'effectiveness of skill performance and counterattack speed. *international development planning review*, 23(1), 149-162.
  94. salman, a. s., & falih, a. p. d. m. s. electronic triadic dialogue strategy and its effect on the level of cognitive achievement of some technical skills in volleyball.
  95. salman, i. s., & dawood, s. s. (2018). the effect of using two active learning strategies (jigsaw) and problem solving in learning some balance beam skills in artistic gymnastics. *published research, al-qadisiyah journal of physical education and sports sciences*, 18(1), 23.
  96. salman, i. s., & dawood, s. s. (2018). the effect of using two active learning strategies (jigsaw) and problem solving in learning some balance beam skills in artistic gymnastics. *published research, al-qadisiyah journal of physical education and sports sciences*, 18(1), 23.
  97. salman, s. m., kadhim, m. j., & shihab, g. m. (2022). the effect of special exercises in the rehabilitation of the shoulder muscle for the youth wrestling category. *international journal of early childhood special education*, 14(5).



98. salman, s. m., kadhim, m. j., & shihab, g. m. (2022). the effect of special exercises in the rehabilitation of the shoulder muscle for the youth wrestling category. *international journal of early childhood special education*, 14(05), 4606–4609. <https://doi.org/10.9756/intjecse/v14i5.555>
99. salman, s. m., kadhim, m. j., & shihab, g. m. (2022). the effect of special exercises in the rehabilitation of the shoulder muscle for the youth wrestling category. *international journal of early childhood special education*, 14(5).
100. salmana, t. d., & hameed, g. n. a. (2022). effect of a training curriculum for the development of some functional variables and the level of achievement in the effectiveness of air rifle shooting. *international journal of health sciences*, 6, 13180–13190.
101. sarhan, q. a. (2019). the effect of the exercises of retrieving the ball from the net on the development of the skill of defending the stadium in the volleyball. *university of anbar sport and physical education sciences*, 4(19).<https://doi.org/10.37655/uaspesj.2019.172349>
102. sikhe, h. s., & khalid, k. n. (2022). the effect of game-like exercises on tactical thinking, and the accuracy of forward and backward fast setting in volleyball setters aged 15–18 years old. *journal of physical education*, 34(3).
103. taher, w. t., & zoon, e. a. a. (2019). the effect of fartlik and hill style (consequence & intermitted) using treadmill for developing leg muscular strength and 400m running achievement in physically disabled (46–47). *journal of physical education*, 31(3).
104. tawfeeq, a., & jalal, k. (2019). the effect of preventive exercises on the development of some abilities affecting prevention from injuries in young boxers. *journal of physical education*, 31(2), 159–166. [https://doi.org/10.37359/jope.v31\(2\)2019.924](https://doi.org/10.37359/jope.v31(2)2019.924)
105. ubaida, h. a. h., & ismail, a. m. (2021). special speed endurance effect of 800m running on some physiological indicators and achievement of physically disabled men class (t47–t46). *journal of physical education*, 33(4).
106. wagih mahjoub (1988). *scientific research methods and curricula*. 2nd edition: (baghdad, dar al-hikma)
107. yasir, a. m., hammood, h. s., & sikhe, h. s. (2020). special skill exercises to develop mechanical movement behavior and the accuracy of setting skill performance for volleyball players. *international journal of psychosocial rehabilitation*, 24(05).
108. zeoon, e. a. a., & ismail, k. s. (2020). the effect of using sport parachute for developing fast and explosive strength and 100m sprint achievement in sprinters with simple mental disability. *journal of physical education*, 32(3).
109. zghayer, a. a. (2014). effect of taking sodium carbonate dissolved in water at a concentration of lactic acid ratio, in the fifth minute to rest after a maximum effort for the football players in the first division. *journal of physical education*, 26(3).