

# The effect of suggested exercises on improving the kinesthetic response of soccer goalkeepers

Mandoob Makki Ati, Teba Saleem Abd Almajed, Qatada Hisham Abdulghafoor, Halah Sinan Atiyah, Sabah Qassem, Mohamed Hassan ,Ahmed Quinn Dawood, Mohamed Abdel Hussein, Thamer Hamed, Ahmed Farhan, , Hussein Khamis, Mohamed Qusay, Ahmed Thamer, Abbas Fadhil, Salah Mahdi, Mubasher Harith, Ghassan Adeeb, Muwafaq Obayes, Saad Abbas Wesam Najeeb Ali Sadiq

University of Baghdad, Faculty of Physical Education and Sport Sciences, Iraq

mandoob.m@cope.uobaghdad.edu.iq, teba.saleem1204b@cope.uobaghdad.edu.iq, qatada.h@cope.uobaghdad.edu.iq, hala.s@cope.uobaghdad.edu.iq

Abstract. The introduction to the research included a presentation of some physical characteristics and their importance in sports, including the speed of kinesthetic response response and the extent of its usefulness and importance, especially for soccer goalkeepers, as it is the most important element that goalkeepers must have, and it is also the main key to the excellence and development of all physical and kinesthetic response qualities and skills of a goalkeeper. Football. The speed of kinesthetic response response and reaction is one of the requirements of the game of football, as well as all other sports and even in general professional life. Its importance is highlighted for the football goalkeeper, so he must master it perfectly to perform the game with the best performance and direction. Because of its importance, coaches work to develop it. Through continuous exercises and training, hence the importance of research into knowing the effect of the proposed physical exercises to develop the goalkeeper's reaction speed, identifying some important exercises that have an effective impact on developing reaction speed, and considering them in the issue of training and developing the performance level of goalkeepers in football. The research problem included monitoring and watching the matches played by the clubs. It was noted that the performance level of football goalkeepers suffers from a decline in several aspects that may affect the outcome of the matches. We take the most important aspect, which represents (the speed of kinesthetic response response), which did not take its share sufficiently like the rest of the abilities. The other is when preparing goalkeepers for football, and from this low level of this aspect came the research problem. The research aims to identify the effect of using suggested exercises to develop the kinesthetic response response speed of soccer goalkeepers. The experimental method was used and two equal groups with preand post-tests were designed for suitability and the nature of the research. The research sample consisted of a group of goalkeepers aged 16-20 years, (12) goalkeepers who were chosen intentionally from clubs (Al-Karkh, Amanat Baghdad, Airlines). They were divided into two groups by lottery: the first was a control group, numbering (6) guards and the second was an experimental group, numbering (6) guards. The research concluded that the proposed exercises had a positive impact on developing the motor response of the individuals in the research sample, to varying degrees. Also, the proposed exercises were the best in developing the goalkeepers' kinesthetic response response.



**Keywords**. kinesthetic response, exercises, goalkeepers

## Introduction

The game of football is one of the common games that includes many motor, physical, and tactical skills and qualities that the football player must possess, such as speed, reaction, motor response, speed of performance, concentration, and attention throughout the match and for all lines and positions of play, since the goalkeeper is the one who occupies the line and the most important position. In the team, he has a great responsibility in deciding important matches to achieve victory, and this responsibility has made him an important player in the team, and therefore he must be characterized by high physical and skill qualities, in addition to having courage, quick decision-making, boldness, and self-confidence.

The speed of motor response and reaction is one of the requirements of the game of football, as well as all other sports, and even in general professional life, and its importance is highlighted for the football goalkeeper, who must master it perfectly to be able to perform the game with the best performance and direction, and for its importance, coaches work to develop it through exercises and training. Continuous, hence the importance of research in knowing the effect of the proposed physical exercises to develop the goalkeeper's reaction speed and identifying some important exercises that have an effective impact on developing reaction speed and considering them in the issue of training and developing the performance level of goalkeepers in football. The problem of the research is that through monitoring and watching the matches played by the clubs, it was found that the performance level of football goalkeepers is still suffering from a decline in several aspects that would affect the outcome of the matches. We take the most important aspect, which represents (the speed of motor response), which was not taken into account. It has a sufficient share, like other abilities, when preparing goalkeepers for football, and from this low level of this aspect came the problem of research. The research aims to identify the effect of using suggested exercises to develop the motor response speed of soccer goalkeepers. It is assumed that there is a statistical significance before and after in the speed of motor response of soccer goalkeepers.

Exercise is one of the most important means used to improve, develop, and develop the level of athletes' capabilities. It is also one of the basic factors in education and training that work to bring the athlete to achieving his specific and decreed goal in a way that suits the needs and requirements of the activity practiced as effortlessly and as short as possible. This is the goal of special exercises that work. To develop the skills and capabilities that characterize the practiced activity, special exercises have been defined as "physical exercises whose purpose is to develop sports skills as well as they take part in the form of movement." It is also known as "exercises that aim to prepare and develop special motor skills for various types of sports activity such as games." Ball, athletics, gymnastics, championship exercises, etc. These exercises work to develop the abilities and capabilities of the body, especially speed, strength, and motor and muscular abilities, and they have the most important and greatest role in preparing the athlete, especially in the period of preparation for games and competitions. "The benefit of special exercises above all is that by changing the elements the load, by analogy, is distinguished by the place of special competition, and the focus and influence are on a single ability."

The proposed exercises were divided into two groups. The first represents those exercises whose movement path is very similar to the competition, differing in the feature of its location or containing a movement element or elements. The second, are those exercises that contain



part of the movement path of the sporting event and in which one or several muscles work (force, time, path) when performing competition movements.

The motor response is considered one of the necessary priorities, and it is the basis for performing any movement within any activity in sports activity, but there is a difference between each activity in terms of the need for this activity. The motor response is according to the technical and planning requirements of each game or each practiced activity, and even in general daily life, and its importance is increasing. For some groups, whether professionally or forgetfully, which makes it an important factor in success, it appears in many situations, including a quick attack, a quick change in adverse circumstances, and shooting at the moment there is a gap in the goalkeeper, as well as in many situations.

Response speed is defined as "a correlation between the reaction time to movement and the movement time, i.e. the time that elapses between the occurrence of the stimulus and the completion of the motor performance, and it is also defined as the time between the instruction and the movement." The ability to respond motor to a specific stimulus in the shortest possible time is defined.

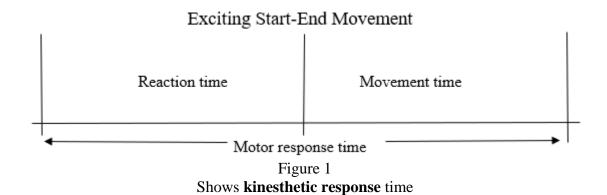
There are two types of motor response: the simple motor response, which is a conscious response in which the athlete knows in advance the type of stimulus expected, such as starting a running or swimming competition, and the complex motor response, which is an unconscious response, and in this type of response, the athlete does not know in advance the type of stimulus. What will happen, as well as the type of response?

The speed and accuracy of the motor response depend on many factors, including the ability to navigate spatial and temporal orientation to various situations accurately, the accuracy of visual, auditory, and sensory perception, the ability to anticipate the player, the level of skill performance, the speed of movement (aiming, finding an offensive position, preparing an appropriate defensive response). The motor response time is the time between the appearance of the stimulus and the end of the motor response.

The goalkeeper is one of the most important elements of the team and represents half of it or more. This is due to the importance of his position and protecting him is the most important thing that the other team is trying to achieve, and that is by repelling and thwarting the attempts made by the opposing team to attack his goal. If the goalkeeper can defend his goal with all valor, he gives the team an incentive to do more. Great efforts and also give the audience fun, enthusiasm, and excitement.

If the striker scores goals to achieve victory for his team, then the goalkeeper consolidates and maintains this victory. The goalkeeper must be characterized by physical and skillful qualities in addition to psychological qualities such as (courage, boldness, boldness, and the ability to lead and direct his fellow players on the field), as well as He must be characterized by intelligence, quick reaction, and predict situations and attack movements. He must be calm and poised, especially when his goal is hit by a goal, and control his nerves and not be affected by the result, whatever it may be so that the team continues its efforts to adjust the course of play. In addition to these psychological qualities, there are physical qualities that are indispensable for any team. A goalkeeper. These physical characteristics include having the talent and desire to guard the goal, being of moderate height for a year, his hands being long, his feet not being flat, his weight must be moderate in proportion to his height, and he must have strong muscles in both hands. On the legs, he has superior flexibility and agility, he is characterized by quick reaction, quick movement, and sensitivity on the ball.





The speed of motor response is considered one of the most important characteristics that a goalkeeper must possess in football to be able to deal with difficult and complex situations correctly and successfully. The goalkeeper's speed of response enables him to solve difficult and sudden situations that require him to quickly respond and develop a solution. This applies to strange goals inside the penalty area. That requires a quick reaction to the direction of the strike.

## **Methods**

# **Participants**

The experimental method and the design of two equal groups with pre-and post-tests were used for suitability and the nature of the research. The research sample consisted of a group of goalkeepers aged 16-20 years, and their number was (12) goalkeepers who were chosen intentionally from clubs (Al-Karkh, Baghdad Municipality, Airlines) and were divided into two groups through a lottery, the first a control group of (6) goalkeepers and the second an experimental group. There are (6) goalkeepers excluding goalkeepers who suffered a previous injury. For the period from 7/21/2023 until 12/1/2023, in the stadiums of the College of Physical Education and Sports Sciences at the University of Baghdad - Al-Rusafa - Al-Jadriya.

The exploratory experiment was conducted on a sample of football goalkeepers, who were not members of the sample, on 7/3/2023. To determine the time it takes for the test to identify the adequacy of the assistant work team and the strengths and weaknesses of the test.

Nelson's selective motor response test was used. The necessary tools were used (a stopwatch, an obstacle-free level space area 20 m long and 2 m wide, and adhesive tape). The procedures were done by lining the test area with three lines, the distance between each line being 6.40 m, and the length of the line 1 M, where the tester stands at one end of the center line facing the arbitrator who stands at the end of the other end of the line. The tester takes a ready position so that the center line is between the feet and so that he bends his body slightly forward. The arbitrator holds the stopwatch with one hand and raises it to the top and then quickly moves His arm is either to the left or to the right and at the same time runs the clock. The tester responds to the hand signal and tries to run as quickly as possible in the specified direction to reach the sideline, which is 6.40 meters away from the center line. When the tester crosses the correct sideline, the arbitrator stops the clock, and if it starts the tester runs in the wrong direction, the referee continues to run the clock until the tester changes direction and reaches the correct sideline

The laboratory is given ten successive attempts, 20 seconds between each attempt and another, with five sequence attempts on each side. The attempts on each side are chosen in a random,



sequential manner. To achieve this, ten pieces of cardboard (cards) of uniform size and color are prepared, and the word: left is written on five of them, and on the fifth, The other is an oath, then it is turned well and placed in a bag, box or hat and then taken out without looking at it.

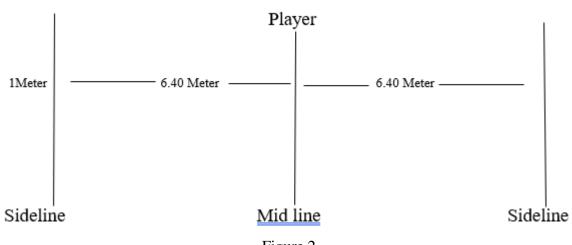


Figure 2
Nelson's selective **kinesthetic response** test

The purpose is to attribute the differences to the special exercises proposed by the researcher. Equivalence must be achieved between the two research groups in motor response speed, as follows.

#### **Results and discussion**

Table 1 Equivalence of the two research groups

Variable	Groups				t	T-test	Sig 0.05
v ar rabic	Experi	mental	Con	ntrol	t 1-te	1-test	Sig v.vs
lein agth atio mann and	X	Y	X	Y	0.700	1,812	Sig
kinesthetic response	1,937	0,036	1,933	0,064	0,709		

P (6+6-2=10)

Since the calculated T value (2.709) is smaller than the tabulated T value of 1.812 in the face of a degree of freedom (10) and a significance level... This means that the differences are not significant, meaning that the two groups are equivalent in the level of motor response for the goalkeepers and the control and experimental groups.

The field procedures consisted of a pre-test conducted on the control and experimental groups on (4-5/7/2023) at two o'clock in the afternoon on the field of the industrial clubs, the Municipality of Baghdad, and the stadium of the College of Physical Education and Sports Sciences at the University of Baghdad.

The main experiment was conducted with a pre-test for motor response speed. The researchers developed proposed exercises for motor response speed and applied them within the training curriculum for the selected clubs, which includes integrated preparation for players. The experiment lasted (12) weeks and the number of training units reached (21) training units at a rate of three units. Training in one week and with a time of (120) minutes for each training unit and for the control and experimental groups. The units were determined according to the plan



of the approved training curriculum for these teams. The proposed exercises were used at the speed of motor response of the experimental group in the main section of the training unit and with a time of (40) minutes. The control group used the method used by the trainer during the training unit.

Implementation of the main research experiment began on (7/7/2023) and ended on (11/18/2023), where the experiment was implemented by the teams, and as follows, the proposed exercises were used: speed and motor response for the experimental group. The exercises are applied to the experimental group in the main section. With emphasis on applying the suggested exercises to the sample after.

The other was the post-test, where the post-test was conducted for the control and experimental groups on the date (20-21/11/2032), taking into account the same temporal and spatial conditions and tools for the pre-test at two o'clock in the afternoon on the research sample for the control and experimental groups, and the results were recorded in the registration form.

**Table 2**The arithmetic means of the differences, their standard deviations, the calculated and tabulated T-values, and the significance in the pre-and post-tests for the control and experimental groups.

Variable	Groups	В	SE	t	T-test	Sig 0.05
him anth atio management	Experimental	0,212	0,062	8,480	2.015	Sig
kinesthetic response	Control	0,035	0,056	1,590	2,015	In Sig

P=0.05 (1-6)

It is clear from Table (2) that the calculated values for the experimental and control groups in motor response between the pre-and post-tests were (1,590.8,480), respectively, and when compared to the tabulated value of (20015), the degree of freedom (6-1-5) and the level Significance (0.05) It was found that the differences of the control group were not significant while the differences of the experimental group were statistically significant and moral. The researcher attributes this to the exercises and training curricula that the members of the two groups undergo have effects that appear in the significant differences. This confirms the importance of specialized exercises that are given to the goalkeeper. In the teams under study, the difference in development between reaction time and movement time (response time) originally results from improving the technical performance of skills as well as improving fitness or physical condition.

Table 3 Arithmetic means standard deviations, calculated and tabulated T-value, and significance between the post-tests for the control and experimental groups, motor movement of soccer goalkeepers.

Variable	Groups				4	T-test	Sig 0.05
v ai iabie	Experi	mental	Cor	ntrol	ι	1-test	oig v.vo
kinesthetic	X	Y	X	Y	9,050	1,812	Sig
response	1,721	0,053	1,902	0,041			

P(6+6-2=10)

It is clear from Table (2), shows the differences between the post-tests of the control and experimental groups in the motor response of the soccer goalkeepers under study. It was found that the differences were statistically significant and significant and in favor of the experimental



group, as they amounted to (9,050), which is greater than the tabular value of (1). (812) in front of the degree of freedom (10) and the level of significance (5...) The researcher attributes this to the importance of the special exercises that the researcher used in his experimental group, as these exercises were more specialized than the other exercises, which caused these differences in the goalkeepers' motor response. And towards a better response, especially since motor performance is coupled with sharp attention, which results in a good reaction and a correct motor response. It is an adaptation that leads the athlete to a healthy knowledge of the thing he pays attention to, i.e. understanding motor issues, which helps in reducing the time necessary for motor perception, and thus the athlete reaches the formation of Rapid response, which is the effective action from the moment the stimulus enters the brain until the response begins, which indicates that they are in the same line of initiation. Athletes are trained to respond quickly to situations that require speed in movement to reduce the reaction time so that this does not come at the expense of accuracy of movement. And motor stop.

#### **Discussion**

From the results mentioned in the research, it was concluded that the proposed exercises had a positive impact on developing the motor response of the individuals in the research sample, to varying degrees. Also, the proposed exercises were the best in developing the goalkeepers' motor response. It is recommended that it is necessary to use the suggested exercises when developing the basic skills of goalkeepers, by staying away from general exercises during the period of special preparation and competitions and focusing on special exercises, and also the necessity of paying attention to goalkeepers due to their weight in the match and their role.

#### Conclusion

The researchers recommend using the suggested solution exercises while developing basic ski lls for a goal. Avoid broad activities throughout the period of private preparation and competit ion

and instead focus on customized exercises. Pay attention to the game's goal and function. Crea te more such studies for various events.

# Reference

- 1. ahmad bin eata wakhrun : mustawaa tarkiz alaintibah wasureat radi alfiel alsameiat walbasariat ean alriyadiiyn waghayr alriyadiiyna, bahath manshur fi almutamar aleilmii alriyadii alsaadis , aljamieat al'urduniyata, alriyadiat waltanmiat , almujalad al'awal 2009 .
- 2. bistwisaa aihmad eabaas ahmad : turuq altadris fi almajal alriyadi: (almawsil matbaeatajamieat almusil, )1984.
- 3. rysan mujayd khiribit : mawsueat alqiasat walaikhtibarat fi altarbiat alriyadiat : j 1 , (darialkutub walwathayiq , )1989.
- 4. sameiat khalil muhamad : mabadi alfisilujya alriyadia ) sharikat nasa liltibaeat , t 1 .
- 5. eadil eabd albusayr : altadrib alriyadiu waltakamul bayn alnazariat waltatbiq , alqahirat , markazalkitab lilnashr (1999).
- 6. eisam eabd alkhaliq : altadrib alriyadiu ( nazariaat tatbiq ) , t 1 , (al'iiskandariat , daralmaearif lilnashr , 1997)
- 7. qasim hasan husayn : 'asas altadrib alriyadia : t a , eaman) , dar alfikr liltibaeat walnashrualtawzie , 1998). .
- 8. laylay :zahran al'usus aleilmiat hintuan dar alfikr alearabii (1997).aleilmiat waleamaliat liltamrinat alfaniyati).



- 9. muhamad hasan ealawi wa'abu aleala aihmad eabd alfataah : fasilujia altadrib alriyadii : (alqahira .dar ainfar alearabii , 2000) .
- 10. mufti 'iibrahim hamad: almaharat alriyadiat 'usus altaelim waltadrib waldalil almutawir , (markazalkitab lilnashr , t 1 , 2002 ).
- 11. muafaq 'asead alhini: al'iiedad almutakamil liharis almarmaa : t dar alnuwr lilnashr ,2010.
- 12. haruhi: 'usul altadrib (tarjamatu) eabd eali nasif , t 2 , matabie altaelim aleali, jamieuh almusil,1990.
- 13. wajabah mahjub : eilm alharakat bialtaelim alharakii : (jamieat almusl, j 1, (1985)
- 14. 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(1), 310-323.
- 15. Mondher, H. A., & Khalaf, S. Q. (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),563-574.
- 16. نهاة صبيح عبيد & صباح قاسم خلف. (2018). The Effect Of Psychological Counseling On The Development Of Psychological Skills and the Level Of First Class Soccer Referees (Baghdad governorate). Journal of Physical .Education, 30(1),300-327
- 17. 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),111-121.
- 18. زينب شاكر حمود & زينب شاكر حمود (2018). Using Agility Exercises For Developing Some Refereeing Skills Of First Class Assistant Referees In Baghdad. Journal of Physical .Education, 30(1),287-299
- 19. صباح قاسم خلف. (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.
- 20. Mhana, M. A., & Khalaf, S. K. (2019). The Effect of Special Exercises for Developing Transitional Speed of Field Referees in Iraqi Soccer Primer League. Journal of Physical Education, 31(3),252-257.
- 21. مباح قاسم خلف & بيوسف كاظم عبد. (2018). Agility and its relationship with of scoring accuracy for young footballers aged (14-16) years. Journal of Physical .Education, 30(3),23-32
- 22. Dawood, A. Q., Shaalan, U. H., & Nsaif, A. K. (2022). The influence relationship of creative thinking on the quality of work life, an analytical study on people's officials in the General Directorate of Education of Baghdad Governorate, Rusafa/second. Technium Soc. Sci. J., 31, 1.
- 23. Hamza, S. L., & Helil, M. H. (2019). The Effect of Flipped Classroom Strategy On Learning Volleyball Serving and Receiving In Second Grade Secondary School Students. Journal of Physical Education, 31(4),79-88. https://www.iasj.net/iasj/article/185700
- 24. Halel, M. H. (2014). The impact of computer software and physical skills in the development of the Motor Sensory Perception kindergartens for the children of the civil. Al. Qadisiya journal for the Sciences of Physical Education, 14(2 part (3)),55-62.
- 25. Haleel, M. H. (2014). The impact of learning styles in a variety of education and keep the speed performance of Aldharpt in front and transmitter in tennis for students. Journal of Physical Education, 26(2),1-11.



- 26. يوسف محمد علي يوسف & محمد حسن هليل. (2018). The Effect of Group Competitive Learning Style on Learning Some Fundamental Skill In First Grade Se3condry School Students. Journal of Physical Education, 30(2),254-267
- 27. احمد هيثم فاضل & محمد حسن هليل. (2018). The Effect Of Special Exercises On Learning Hurdle Clearing And The Rhythmic Triple Step Of 100m Hurdles Aged 14–15 Years Old. Journal of Physical Education, 30(1)111-131.
- 28. Hussein, H. K. (2021). A Study of Actual Training Time Administration in Bedra Specialized Weightlifting Club. Journal of Physical Education, 33(3),167-177.
- 29. Ibrahim, L. A., & Hussein, H. K. (2024). The reality of the moral climate and its relationship to the decision-making of boxing referees from the standpoint of coaches. Eximia, 13(1), 154-166.
- 30. Hussein, H. K. (2024). The reality of the organizational brilliance of physical Educators in the college of Physical Education and Sports Sciences/University of Baghdad from female students point of view. Eximia, 13, 11-25.
- 31. Abdulhassan, G. A., Hadi, A. A., & Hussein, H. K. (2020). The effect of special exercises pursuant to strength reserves on maximum strength and top of electric activity of muscles \*Emg\* Of weightlifters. International Journal of Psychosocial Rehabilitation, 24(8), 13697–13705.
- 32. Khaleq, S. A. W. A., Hussein, H. K., & Qusay, M. (2020). "Analyzing the Empowerment Reality of National Team Coaches for Some Individual Olympic Games. International Journal of Psychosocial Rehabilitation, 24(08),1475-7192.
- 33. Jasim, H. T., Mohamed, M. Q., & Hussein, H. K. (2019). Staff Administrative Training Of Central Tennis Federation and Its Branches In Middle and South Of Iraq According to Training Requirements. Journal of Physical Education, 31(2).9-17.
- 34. Nsaif, A. K., Dawood, A. Q., & Khalaf, B. M. (2021). The effect of organizational provess on organizational agility, a study that was applied to a sample of employees of the Oil Marketing Company (SOMO). Review of International Geographical Education Online, 11(7).
- 35. 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),77-85.
- 36. Razzaq, L. M. A. (2012). The Impact of Blayomterc Special Exercises to Develop Muscle Power on the Movement of Defensive Basketball Player Ages (18 years) and less. Journal of Physical Education, 24(1),244-270.
- 37. Awad, M. K., Qasim, K. J., & Ali, S. H. (2024). Using an educational method according to special exercises to perform the skill of bow and develop flexibility for cub wrestlers in Iraq. Eximia, 13, 38-50.
- 38. Shakir, S. W., Abdel-Sattar, M. A. I., & al-Dulaimi, T. M. H. (2024). Job pressures affecting the quality of teachers' performance at the College of Physical Education and Sports Sciences/University of Baghdad. Eximia, 13(1), 99-120.
- 39. Dhiab, A. S., Saeed, S., & Fathi, R. S. (2020). Training for Anaerobic Differential Threshold Stand and its Impact on Lactic Acid Concentration and LDH Enzyme and VO2MaX and Cortisol Hormone for Free 400 m men-runners. International Journal of Psychosocial Rehabilitation, 24(05),1475-7192.
- 40. Hameed, I. R., Dhiab, A. S., & Saeed, S. (2020). Strength Training and its Effect in Some Biochemical Variables in the High Jumping of Advanced Players. International Journal of Psychosocial Rehabilitation, 24(05),1475-7192.



- 41. Dhiab, A. S., Saeed, S., & Hameed, I. R. (2020). Special exercises with ropes, rubber bullets and their impact in some biomechanical variables in the 100m hurdles ran for juniors. International Journal of Psychosocial Rehabilitation, 24(10), 1475-7192.
- 42. Al-Bahadli S.A.Z.H.M., Al-Tamimi A.F.A.(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, April-June 2022 Vol. 12, Issue 2; 150-176 DOI: g/10.37648/ijrssh.v12i02.010 http://doi.org/10.37648/ijrssh
- 43. Zahraa, S. A., & Ali, A. F. (2022). The Effect of Musculus Rhomboideus fibromyalgia Rehabilitation Program in Youth and Advance Freestyle and Greco–Roman Wrestlers. Journal of Physical Education, 34(2),155-171.
- 44. Saaed, H. K., Alhamdany, S. N., & Dawood, A. Q. (2020, November). Innovation work Behaviors as a mediator of the relationship between Reliable leadership and Knowledge Sharing Exploratory study at the Baghdad's Ministry of Labor and Social Affairs. In 2020 2nd Annual International Conference on Information and Sciences (AiCIS) (pp. 222-229). IEEE.
- 45. Ali, A. F. (2014). The percentage of contribution on some physical measurement of throw blind youth judo player skills. Journal of Physical Education, 26(2),137-152.
- 46. أحمد فرحان علي التميمي (2010). Effect of using wrestling doll in some snatch movement to judos youth players. Sciences Journal Of Physical .Education, 3(1),149-163
- 47. ...(2018) عبدالله هزاع, & محمد قصي محمد. (2018). The Study of Change Management Reality in Administrative Bureaus' Human resources for Some Baghdad Sports Clubs .Journal of Physical Education.102-83,(2)30,
- **48.** Mohammed, J. A., Mohammad, M. Q & "Muhaibs, A. A. (2020). The Extent of Implementing the School's Development Plan from the Point of View of Supervisors International Journal of Psychosocial Rehabilitation .2156-2146,(05)24,
- 49. محمد قصي محمد. (2019). م حيدر طالب جاسم, م. د حسين خميس حسين, & م. د محمد قصي محمد. (2019). Occupational Satisfaction Reality AnalysisIn Iraqi Tennis Federation Coaches .University of Anbar Sport and Physical Education Sciences .17-9,(19)4 ,https://doi.org/10.37359/JOPE.V31(2)2019.901
- 50. 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.
- 51. Джавад, А. К. А. М. (2016). Формирование мобильности подростков в условиях детско-юношеских спортивных школ Ирака. Гаудеамус, 15(1), 83-87.
- 52. Аль, К. А. М. Д. (2013). МОДЕЛЬ ФОРМИРОВАНИЯ МОБИЛЬНОСТИ ПОДРОСТКА СРЕДСТВАМИ ФИЗИЧЕСКОЙ КУЛЬТУРЫ В ДЕТСКО-ЮНОШЕСКИХ СПОРТИВНЫХ ШКОЛАХ. Вестник Воронежского государственного технического университета, 9(3-2), 95-98.
- 53. Almusawi, R. A., & Alsudani, A. R. (2020). The Effect of Self Scheduling Strategy Using Competitive Style in Learning Short and Long Passes in Handball for 2nd Grade Secondary School Students. Journal of Physical Education, 32(4),15-24.
- 54. Almusawi, R. A., & Alsudani, A. R. (2020). The Effect of Self Scheduling Strategy Using Competitive Style in Learning Short and Long Passes in Handball for 2nd Grade Secondary School Students. Journal of Physical Education, 32(4),15-24.
- 55. Kazim, M. J., & Khamis, A. (2019). The Effect of Special Exercises Using Handball RT On Motor Response Development and Some Goalkeeping Skills For Handball Players from the National Center for Gifted In Handball Aged (15–16) Years Old. Journal of Physical Education, 31(4),149-157.



- 56. Razzaq, L. M. A. (2019). Determining standard levels to test the strength endurance characteristic of speed for basketball players for juniors aged under (16) years. Modern Sport, 18(4),332-344.
- 57. Mahde, M. A., Kadhim, H. A. A., & Tarish, H. N. (2023). The Effect of Dynamic Lactic Training According to the Target Time to Develop the Achievement of 800m Runners Under 20 Years Old. Pakistan Heart Journal, 56(2), 317-323.
- 58. Karam Salam Ismaeil, D. B. R. J., & Kadhim, H. A. A. (2023). The effect of using electrical stimulation and massage within a suggested device to restore muscle lengthening for athletes with a moderate-intensity muscle tear in some posterior thigh muscles. Pakistan Heart Journal, 56(1), 262-267.
- 59. 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.
- 60. Dawood, A. Q., Khalaf, B. M., & Nsaif, A. K. (2021). The role of strategic insight building of the organization's personality: an analytical study of a sample of department directors and people's officials in the General Directorate for Education in Baghdad's Karkh Third Governorate. Review of International Geographical Education Online, 11(7).
- 61. Mahde, M. A., Kadhim, H. A. A., & Tarish, H. N. (2023). The Effect of Dynamic Lactic Training According to the Target Time to Develop the Achievement of 800m Runners Under 20 Years Old. Pakistan Heart Journal, 56(2), 317-323.
- 62. 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),98-107.
- 63. Hussein, A. A. A., & Sakhi, A. S. (2020). The use of the electronic system with special exercises and its impact in the development of shooting on the basketball for young people. Mustansiriyah Journal of Sports Science, 2(4), 24-29.
- 64. 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.
- 65. Abed, M. T., Irhayyim, A. L. S. G., & Rija, T. H. (2020). The Psychological Pollution And Its Role In The Effectiveness Of The Administrative Performance Of International Stadiums Staff (Baghdad, Arbil, Basrah). International Journal of Psychosocial Rehabilitation, 24(09), 1475-7192.
- 66. abdulsattar Alaany, M., & Mohameed, H. M. (2021). The Effect of Using Xtra–Man Apparatus on Developing Motor Response Speed In Advance Basketball Players. Journal of Physical Education, 33(2),154-163.
- 67. MANDOOBMAKKIATI, A., & ABED, Y. (2024). AN ANALYTICAL STUDY OF THE ORGANIZATIONAL CRISES FACING COACHES IN THE IRAQI FOOTBALL LEAGUE. International Development Planning Review, 23(1), 226-236.
- 68. Ghafoor, Q. H. A., Salman, A. D., & Ali, S. A. S. (2022). Effect of Proposed Exercises Using the Sponge Mat in the Performance of the Skill of Court Defence in Sitting Volleyball. Specialusis Ugdymas, 1(43), 2135-2144.
- 69. & سندس محمد سعيد الشيخلي, The Effect of Proposed Exercises Using Sponge Mat On the Level of Performing Offensive Skills in Sitting Volleyball. Journal of Physical Education, 30(1),64-80.



- 70. Jumaah, A. H., & Ameen, B. A. M. (2023). The Effect of the Strategy of Differentiated Education According to the Auditory Learning Style by Using Assistance in Learning the Back Kick (T-Chagi) for the Young Players of Specialized Schools in Taekwondo. Pakistan Heart Journal, 56(1), 137-148.
- 71. Ahmed Quinn Dawood, Dr. Suheir Adel AL-Jader, "Reflecting Patterns of Strategic Thinking on Organizational Conflict The Search a Comparative Analysis", International Journal of Science and Research (IJSR), Volume 6 Issue 12, December 2017, pp. 1048-1053, https://www.ijsr.net/getabstract.php?paperid=2121705
- 72. Rija, T. H., Mohammed, T. K., & Kadhlm, R. A. (2023). The Role of Organizational Development in Improving the Reality of the Work of the Administrative Bodies to Manage Active Sports Clubs in Baghdad. Revista iberoamericana de psicología del ejercicio y el deporte, 18(3), 298-304.

https://dialnet.unirioja.es/servlet/articulo?codigo=9087516

- 73. Rija, T. H., Mohammed, T. K., & Kadhlm, R. A. (2023). The Functional Burden outside the Official Hours during Corona Pandemic and Its Relationship to the Career Life Quality for Female Teachers of the Faculties of Physical Education and Sports Sciences. Revista iberoamericana de psicología del ejercicio y el deporte, 18(3), 305-311. https://dialnet.unirioja.es/servlet/articulo?codigo=9087517
- 74. Thamer, M. D., Raja, H., & Rumaih, A. F. (2016). Compared study to the effectiveness of the physical education lesson between AL Karakh education first and second in Baghdad Governorate. Journal of Physical Education, 28(4), 374-348.
- 75. Yousif, T. A., Almogami, A. H. B., & Khadim, W. I. (2023). Analysis of the Effectiveness of Offensive Skill Performance according To a Computer based Analytical Program for Professional Players in the Iraqi Volleyball League. Revista iberoamericana de psicología del ejercicio y el deporte, 18(2), 185-189.
- 76. Yousif, T. A., Almogami, A. H. B., & Khadim, W. I. (2023). the Effect of Special Exercises Using the (Rebound Net) Device in Developing the Accuracy of Spike Diagonal Skill in Volleyball. Revista iberoamericana de psicología del ejercicio y el deporte, 18(2), 194-195.
- 77. Obaid, A. J., Hussein, L., & Zighair, R. M. (2022). The effect of learning with direct playing style on the accuracy of table tennis serve in 8-10-year-old players. SPORT TK-Revista EuroAmericana de Ciencias del Deporte, 26-26.
- 78. Shukur, L. H., Jalal, A., & Zighair, R. M. (2022). The effect of the learning model together using auxiliary tools in developing the accuracy of the forehand stroke in table tennis. Revista iberoamericana de psicología del ejercicio y el deporte, 17(1), 36-39.
- 79. Ahmed Quinn Dawood, The Mediating Role of Organizational Dexterity in the Influence Relationship of Strategic Leadership on Organizational Success: A Descriptive and Analytical Study of the People's Officials in the Oil Marketing Company (SOMO), July-September 2021 Vol 11, Issue 3; 653-677 DOI: http://doi.org/10.37648/ijrssh.v11i03.038
- 80. Othman, M. J. (2016). The effect of exercises by various resistors in some aspects of the mechanical movement and the completion of pushing the Iron ball of young people. Sciences Journal Of Physical Education, 9(3),281-292.
- 81. Physical Activity, Sleep and Health-related quality of life (HRQOL) for college students in Iraq. (2024). Journal of Physical Education, 36(1), 213-198. https://doi.org/10.37359/JOPE.V36(1)2024.2064
- 82. Salman, T. D. (2020, 21). Study the dimensions of leadership styles and personality characteristics and their relationship to the dimensions of Creative thinking for teachers of



physical education in middle schools in Baghdad Governorate. International Journal of Psychosocial Rehabilitation ISSN:1475-7192, 24(2), 9209-9219. doi:10.37200//2412/37503

- 83. Salman, T. D., & Al Majed, A. A. (2020, Mar 27). A comparative study of the mechanical and electrical activities of the heart according to the energy systems of advanced players. International Journal of Psychosocial Rehabilitation ISSN:1475-7192, 24(09), 4303-4317. doi:10.37200//2419/29101
- 84. Abood, I. A., & Salman, T. D. (2022). A comprehensive quality relationship of the organizational climate of school sports activities from the point of view of sports education teachers in Baghdad. Journal of Physical Education, 34(4),465-479.
- 85. Abdul Hameed, G. N., & Salman, T. D. (2020, 4 30). The effect of the maximum physical effort on some physiological variables, body components and achievement level in the effectiveness of air rifle shooting. International journal of psychosocial Rehabilitation ISSN:1475-7192, 24(4), 9466-9476. doi:10.37200/V2414/32973
- 86. Salmana, T. D., & Hameed, G. N. A. (2022). The 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(S2), 13180-13190. https://doi.org/10.53730/ijhs.võnS2.8489
- 87. Abdulmajeed, T. S., & Yasser, N. (2021). Analytical study of emotional balance for some fundamental skills in iraqi futsal clubs. Journal of Physical Education, 33(3),59-72.
- 88. Shehab, R. A. (2021). The effect of using aids in spatial sense perception Throwing weights under 18 years old. University of Anbar Sport and Physical Education Sciences, 5(23),91-96.
- 89. Abboud, H. J., Hussein, H. K., & Fadhil, S. A. (2024). The effect of increasing the intensity of specialized endurance training on runners' ability in the advanced 1500-meter run in terms of vital capacity indicators (VC) and heart rate (SV). TechHub Journal, 7, 19-27.
- 90. Fadil, Z. A. (2021). Smart construction companies using internet of things technologies. Periodicals of Engineering and Natural Sciences, 9(2), 638-648.
- 91. Fadhil, A.S.A. and Qaddoori, A.B.R.M., 2023. Rehabilitation program for treatment Tennis Elbow (Lateral Epicondylalgia) suffered by the players of Al-Rafidain Sports Club for Tennis League three players in Diyala province. resmilitaris, 13(1), pp.2403-2414. https://resmilitaris.net/menu-script/index.php/resmilitaris/article/view/1698
- 92. Fadhil, S. A., & Khalaf, S. Q. (2023). A treatment strategy for recurrent (ankle injuries) in Muay Thai athletes. Eximia, 12, 486-495. https://doi.org/10.47577/eximia.v12i1.394
- 93. Фадель, С., 2015. Особенности здоровьесбережения в образовательном пространстве Республики Ирак. Фундаментальные исследования, (2-20), pp.4522-4527. https://www.elibrary.ru/item.asp?id=23613287
- 94. Фадель, С. and Можаев, Э.Л., 2015. Модель реализации здоровьесберегающих технологий при подготовке бакалавров в вузах Республики Ирак. Фундаментальные исследования, (2-25), pp.5676-5680. https://www.elibrary.ru/item.asp?id=23775584
- 95. Саад, Ф., 2015. Принципы оценивания качества образовательного процесс в Республике Ирак. Символ науки, (5), pp.234-237. https://cyberleninka.ru/article/n/printsipyotsenivaniya-kachestva-obrazovatelnogo-protsess-v-respublike-irak/viewer
- 96. Фадель, С.А., 2015. Исследование эффективности здоровьесберегающей технологии в образовательном процессе Республики Ирак. Казанская наука, (5), pp.175-177.https://www.elibrary.ru/item.asp?id=23880324
- 97. Фадель, С., 2015. Правильно организованное педагогическое общение. Современная наука: актуальные проблемы и пути их решения, (3), pp.170-171.

www.techhubresearch.com



- 98. Фадель, С. (2015). Специфика развития здоровьесберегающих ценностей в Республике Ирак. Потенциал современной науки, (3), 152-156. https://elibrary.ru/item.asp?id=23330478
- 99. Фадель, Саад. "Национальные особенности подготовки будущих преподавателей физической культуры к формированию здорового образа жизни школьников." Педагогический опыт: теория, методика, практика 1 (2015): 320-321.
- 100. Саад, Ф., 2015. Значение и содержание физкультурно-оздоровительной работы в образовательном пространстве республики Ирак. Символ науки, (4), pp.209-210.
- 101. Фадель, С.А., 2015. Здоровьесберегающие технологии в подготовке бакалавров в вузах Республики Ирак. Современные проблемы науки и образования, (4), pp.37-37. https://www.elibrary.ru/item.asp?id=23939837
- 102. Фадель, С.А., 2015. Анализ реализации здоровьесберегающей технологии в образовательном процессе Республики Ирак. Современные проблемы науки и образования, (2-1), pp.522-522. https://www.elibrary.ru/item.asp?id=24123355
- 103. Саад, Ф., 2015. Научно-методические основы формирования здоровьесберегающих технологий. Educatio, (3 (10)-3).
- 104. Аббас, Фадель Саад. "Современные проблемы здоровьесбережения и сохранения нравственного здоровья учащихся в образовательном пространстве республики Ирак." Казанский педагогический журнал 5-2 (2015).
- 105. Можаев, Э. Л., & Фадель, С. (2013). Внедрение фитнесс-технологий в систему физкультурно-оздоровительной работы в республике Ирак. In Наука и образование в XXI веке (pp. 115-116). https://elibrary.ru/item.asp?id=21433267
- 106. Yasir Hussein Khudhair, Abdullah Ghazi Hamdan, & Saad Abbas Fadhil. (2024). The cognitive and educational importance of the academic teacher for developing the applied skills of third-stage female students in the subject of teaching methods from their point of view. Eximia, 13(1), 121–137. https://doi.org/10.47577/eximia.v13i1.432
- 107. Староверова, Н. А., & Фадхкал, З. (2013). Анализ существующих методов оценки рисков корпоративных информационных систем. Вестник Казанского технологического университета, 16(9), 282-287.
- 108. Кирпичников, А. П., Титовцев, А. С., & Фадхкал, З. (2015). Особенности числовых характеристик открытых многоканальных систем массового обслуживания. В мире научных открытий, (4-1), 525-536.
- 109. Кирпичников, А. П., Титовцев, А. С., & Фадхкал, З. (2015). Некоторые особенности числовых характеристик многоканальных систем массового обслуживания открытого типа. Вестник Казанского технологического университета, 18(2), 362-367.
- 110. Кирпичников, А. П., Титовцев, А. С., & Фадхкал, З. (2015). Особенности числовых характеристик открытых многоканальных систем массового обслуживания. В мире научных открытий, (4-1), 525-536.