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The effect of interactive speed exercises on developing some skills Women's futsal

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Abstract

The speed of skills has become linked to modern methods of individual and group play, and each of them has begun to serve the other tactically. Through the follow-up of the researchers, they noticed that there is a significant weakness in the speed of performance and slowness in mental preparation, which plays a major role in understanding mental readiness, which is linked to the speed of making decisions during the game, as well as the weakness of the physical speed of the female players, which in turn has an impact on the skill performance of the players of the Iraqi clubs, which are the main supporter of the national team. The study aimed to identify the effect of interactive speed training on the performance of some skills among female under-20 football players for the 2022-2023 sports season in the closed hall of the Ministry of Youth and Sports in the capital, Baghdad. The experimental method was used in a controlled manner, two equal groups, experimental and control, with a pre- and post-test on the research sample of Al-Zawraa Club players for the 2023 sports season, which numbered 12 players. They were divided by lottery into two groups, with 6 players in each group, and verification of the normal distribution of the research sample was carried out. After conducting the pre-test and then applying the interactive speed exercises and the post-test, the researchers concluded: 1- Interactive speed exercises led to developing the speed of performing dribbling, handling and scoring skills within one performance in women's futsal. 2- Using interactive speed exercises led to excitement, a spirit of competition, and fast performance, and this achieves one of the sustainable development goals of the United Nations in Iraq which is (Quality Education). Therefore, it is recommended to use speed exercises in all their forms, which affect the physical aspect and thus affect the endurance of skill performance in women's futsal. 3- Providing competitive and recreational exercises in order to develop the physical and skill aspects of women's futsal

Keywords

Reactive speed, skills in futsal.

Introduction:

The game of futsal has witnessed great development due to its rapid rhythm when executing defensive and offensive skills and duties, in addition to the presence of the factor of suspense and excitement in the individual and collective performance of the players.

As the speed of performance increases, the greater the need to understand and realize the movement and distinguish between what is important and what is more important, (1). In light of this, the brain sends commands through the nerves to the

muscles to carry out the motor duty and the correct behavior at the appropriate time during competitions, and here comes the role of training to focus on high-speed exercises with the help of modern technological tools and devices that contribute to increasing the athlete's response as a result of direct influence on sensory and moral stimuli (2)

Therefore, coaches and specialists strive to always reach high and advanced levels through training on organized and interconnected

scientific foundations (5), as a comprehensive view of the field of play is very important and the futsal player should possess it in general to monitor the increase in numbers of players of competing teams. And to increase the speed of playing performance in futsal, therefore, specialists and experts seek to reach the highest advanced levels through training on organized and interconnected scientific foundations in training units (6). Previous studies (Fatima et al.) indicated that interactive speed exercises can develop the physical, motor, mental, and skill aspects (7) of female futsal players, and this combination brings together the most types of speed, skill, or ability in one exercise. Speed in futsal football does not only mean running speed, but rather using it as a tool to solve the challenges facing the player during the real match situation. Training physiologists divide football speed into three types, which are (mental speed, physical speed, and playing speed). (8) Therefore, it was necessary to Futsal players: Successful and correct behavior and minimizing mistakes.

Integration in play, the ability to achieve a high level of performance, the ability to play well, and mastery of the arts and methods of playing are important in futsal, and the success and progress of any team depends to a large extent on the efficiency of defensive and offensive skills and methods that are compatible with modern training, so the game of futsal requires implementing fast play accurately, and this only comes with mastery of all the skills that enable the defensive and attacking line players to perform their duties in a proficient manner, which works to ensure the success of the fast attack process and return to the defense in the event of losing the ball, and work on preparation in organizing the attack build-up through great interaction in performance throughout the game, which requires high skill expertise.

The importance of the research lies in experimenting with reactive speed exercises in a single performance, which includes quick

decision-making after excellence and reaction with quick physical and skillful performance within the framework of the same exercise, in order to invest time and effort in the training process to develop the performance of some skills in futsal for female players.

Therefore, the speed of skills became linked to modern methods of individual and group play, and each of them began to serve the other tactically. Through the follow-up of the researchers, they noticed that there is a significant weakness in the speed of performance and slowness in mental preparation, which plays a major role in understanding and mental readiness, which is linked to the speed of making decisions during the game, as well as the weakness of the physical speed of the female players, which in turn affected the skill performance of the players of the Iraqi clubs, which is the main supporter of the national team.

Based on what was mentioned above, and the need for female indoor soccer players to have high speed in thinking and performance, and due to the small size of the field, this required creating exercises to suit the nature of the rapid skill performance with one performance to increase the player's ability in motor, skill, and physical performance, which is a scientific equation from the researchers to improve the skill performance of female soccer players.

The aim of the study is to identify the effect of interactive speed training on the performance of some skills among female under-20 football players for the 2022-2023 sports season in the closed hall of the Ministry of Youth and Sports in the capital, Baghdad.

Method and procedures:

The experimental method was used in a controlled manner, two equal groups, experimental and control, with a pre- and post-test on the research sample of Al-Zawraa Club players for the 2023 sports season, which numbered 12

players. They were divided by lottery into two groups, with 6 players in each group, and verification of the normal distribution of the

research sample was carried out as follows: Shown in Table (1)

Table (1)

shows the normal distribution of the research sample (control and experimental) in the research variables

Statistical features	Chronological age/year	Training age/month	.Length/cm	.Wight/kg
Arithmetic mean	18.4	18.85	164.07	54.85
Median	18.4	18.5	164.5	54.5
standard deviation	0.511	2.03	2.525	1.833
Coefficient of torsion	0.016	0.738	0.194	0.1570

Devices and tools used in the research:

- Futsal field.
- A smooth wall marked with an area of 1.30 meters' x 2.20 metres, and a line is drawn in front of the wall at a distance of (5) metres.
- A futsal goal of legal measurements, divided into (6) equal sections using iron or wooden partitions or thick ropes.
- Colored adhesive tape to plan and define test areas.
- (2) stopwatch, type (SEWAN), Chinese origin.
- Whistle number (2).
- 10 legal football balls for the halls and (7) signs.

Tests of some skills:

The following test was chosen, which includes three skills (rolling, handling, and scoring) in one performance at high speed, as follows:

Test objective: Measuring skill performance in futsal. (9)

Conditions for applying the test: The test requires the presence of three people: the test director, timer, and a registrar.

Description of the test: The athlete stands on line (A) in a ready position. When the athlete hears the start signal from the test director, which is (the sound of the whistle), she rolls the ball straight for a distance of (3) meters until it reaches the first mark of the five marks for zigzag rolling among them, in any way. The player chooses it to roll, and after passing the fifth mark, she rolls the ball straight up to the seventh mark, circling around it, and returning with the ball to the five marks for the zigzag roll, and then finishing at the starting point she started with. The player leaves the ball after crossing line (A) and runs to the second station of the test, which is the rebound handling station, starting from line (B). On the line there is a rebound handling ball. She performs the rebound handling from line (B) towards the rectangle drawn on the wall and receives it from the line or after it crosses the line for (20) seconds. After the end of (20) seconds, it leaves the ball and runs towards the third station for the test, which is the scoring station, which is located in the goal area near the handling station, which is (2) meters away from the side kick line of the half of the field. In the scoring station, the player shoots the balls placed on the line of the second scoring zone (10 metres) towards the goal, and there are (5) balls, one of which is placed on the

second penalty mark, and (2) balls on her right side, and the same on the left side, one apart from the other (50 cm). When the fifth ball is hit, the test ends.

Registration method: The scorer's job is to record the time taken by the player from the moment the starting whistle is heard until the moment the fifth ball is fired at the scoring station, as well as recording the number of correct tackles at the rebound tackle station and the number of points she obtained at the scoring station according to the registration Prepared form. The test director decides the number of correct tackles according to the conditions for their implementation, and also decides the number of points that the player gets. As follows: When the ball goes into square

(1), (5), the player gets four points. When the ball goes into square (2), (6), the player gets three points. When the ball goes into square (3) and (4), the player gets two points and one point, respectively. After the end of recording the results, the director shall deduct one second from the total performance time for each point obtained by the player at the scoring station, as well as deduct one second for every correct tackle after the ninth tackle, and an increase of one second for every tackle of less than (9) tackles, as well as an additional second. One for the total time of performance for each touch and movement of the five winding roller bars. The function of the timer is to time the total time of the performance as well as the time of the return handling station.

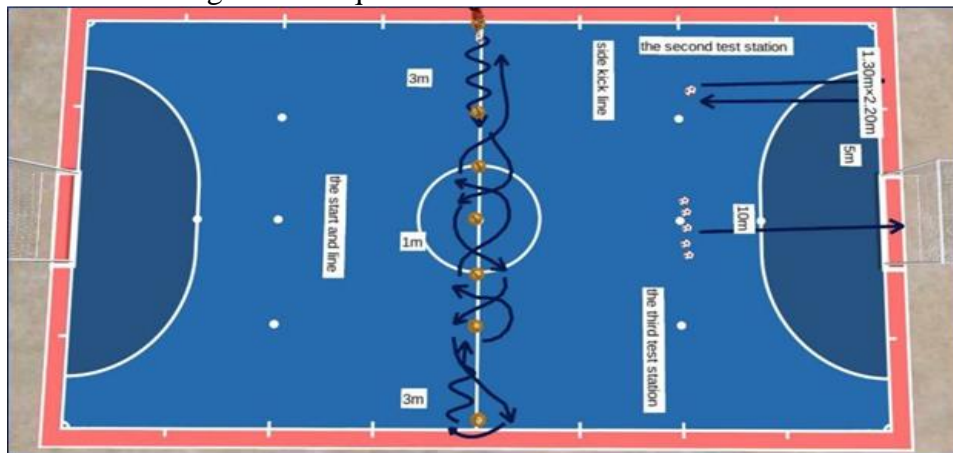


Figure (1) shows the test method

The first exploratory experiment:

The work team (Appendix 1) under the supervision of the researchers conducted a reconnaissance experiment on (2/4/2023) (to determine the positives and negatives that the researchers face during their work in order to avoid them in the future. It is “a preliminary experimental study on a sample with the aim of testing research methods and tools,” (13) They are from the same research community, and through the exploratory experiment the following points and matters were known:

- * Identify the total time for executing the tests. It is (an hour and a half).
- * Knowing the competence of the assistant work team and their understanding of the tests.
- * Identify the validity of the tests used.
- * The validity of the tools used in the tests.
- * Knowing the research sample's understanding of the tests used.

Main experience:

Pretests:

The assistant work team, under the supervision of the researchers, applied the pre-tests for the research sample, the experimental and control groups, on (2/13/2023) at (3) pm in the Women’s Hall in the Ministry of Youth and Sports, in the

presence of the assistant work team. For the purpose of starting from a single starting point, equivalence and homogeneity were conducted for the experimental and control groups, and Table (2) shows the homogeneity and equivalence of the two groups of the research sample.

Table (2)

Shows the statistical features between the experimental and control groups in the pre-tests for the purpose of homogeneity and equivalence

Tests	Measurement unit	Asthmatic mean		Standered deviation	Leven’s value	Error presentage to Leven’s value	Calculated T value	Error presenge to T value	Differences significance
Skill performance	Second	Experimental	61.142	1.951	4.561	0.054	0.503	0.624	Unsign
		Control	60.428						

Significant at significance level $\geq (0.05)$

It was shown from Table (2) that the research sample is homogeneous according to the Levin values, and that the experimental and control samples are equivalent according to the apparent T values, and there is no difference between the two groups in football skills.

Main experience:

The work team, under the supervision of the researchers, conducted the main experiment starting from (2/14/2023 until (4/15/2023) in the special preparation stage, and the method of high-intensity interval training (80-100%) was used in the training units, with attention to rest periods. The number of training units was (24) training units, with (3) training units per week. On the days (Wednesday, Saturday, Monday) of each week at (3) pm for a period of (8 weeks), the exercises were performed after the warm-up and the team entered the main section. The group was withdrawn from the team to perform the exercises until the end of the main section.

The experimental group is given three exercises, each exercise demonstrates the combination of reactive speed exercises in one performance, and each exercise differs from the other in terms of

performance time until the end of the main section.

The time of the main part of the exercises applied to the experimental group (20-25 minutes).

Posttests:

Post-tests were conducted for the research sample, the experimental and control groups, on (4/16/2023) at (3) pm in the Women’s Hall in the Ministry of Youth and Sports, in the presence of the assistant work team.

Under the same conditions under which the pre-tests were carried out.

Statistical means:

The statistical package (SPSS) was used to process the data for the research.

View and analyze results

Table (3)

Shows the differences between the pre- and post-tests of the two research groups in skill performance.

Tests	Two groups	Arthmatical mean		Standered deviation	A M D	Standard Error	Calculated T value	sig	Significanc e difference
		Pre	Post						
Skill performance test for rolling, handling and scoring/second	Experimental group	Pre	61.14	1.951	9.857	1.573	16.573	0.000	Sign
		Post	51.28	1.799					
	Control group	Pre	60.42	3.207	3.285	1.38	6.299	0.001	Sign
		Post	57.14	1.864					
Significant at 6 degrees of freedom and significance level ≥ 0.05									

It was shown from Table (3) that the experimental and control groups developed in some football skills because the calculated T-values were at an error level lower than the significance level (0.05). For the purpose of showing which group is better in development, the results were processed in Table (4) .

Table (4)

Shows the differences between the experimental group and the control group in the post-tests of skill performance

Skill performance test for rolling, handling and scoring/second	Arthmatic mean		Standere d deviation	Calculat ed T value	Error level	Differences significance
	Experimental	51.285				
	Control	57.142	1.864			
Significant at significance level $\leq (0.05)$						

Table (4) shows that the experimental group is better than the control group in developing the performance of rolling, handling, and scoring skills. The study of (Muhammad and Raed) indicated that the nature of futsal football requires the performance of offensive and defensive skills quickly, in addition to motor skill and appropriate timing in performing each. Movement in order to achieve the goal of its performance (10), and the agility, coordination, and balance that these skills require, as well as their connection to the ability to perform activities that require the participation of the body as a whole, especially the large muscles, (11) Therefore, speed training is considered interactive and assistive tools, which are characterized by linking motor performance

with skills with accuracy, consistency, and high speed, are one of the modern trends in training methods. (12)

Understanding the complex coordination of motor duties, the richer the motor experience is, the greater the individual’s ability to determine the precise motor paths within the central nervous system (14), which reflects positively on the sensory-cognitive ability to perform and implement new motor duties in the best possible way and in the least possible way. Time, as the application and execution of exercises for the training process has recently become dependent on the use of various training tools and in accordance with modern technology and techniques, with the combination of executing

exercises at high speed, as they give motivation during training and determine the desired goal in an easy and simplified way for the coach and the player, (15). The tools and devices used to perform special exercises take many shapes and sizes, serve different goals, and are involved in the parts of motor skills, their speed, accuracy, and details in form and content, as well as the information given to the coach about the player's abilities and capabilities, analysis and diagnosis of errors in skill and physical performance, and the coach's ability to correct those errors. (16), Modern training that is based on the mixing and interaction of speed within one performance and with high awareness contributes to increasing the athlete's response as a result of direct influence on sensory and moral stimuli, (17) and has an effectiveness and impact on all the muscles of the body in various ways, (14), (Mays and Liqa'a) study indicated ((The necessity of conducting periodic tests for complex skills on an ongoing basis to identify the level of performance of complex skills and the extent of their development) (4), the study (Ma'rib and Fatima) confirmed (the necessity of paying attention to skill performance by investing in complex mental, motor, and physical speed training that is similar to skill performance) (3)

The study of (Mudhaffar Saleh) indicated "the necessity of using modern training methods and focusing on the aspect of developing the speed of motor response in the field of modern football, which is a new playing style, as the football player needs high and good motor performance and requires the use of his body parts in a large way with the change of place" (18)

The study by Muqdad Al-Seid and others confirmed that, "It is necessary to pay attention to the skill capabilities of emerging football players." (19)

Conclusions:

1- Interactive speed exercises led to developing the speed of performing rolling, handling and

scoring skills within one performance in women's futsal.

2- Using interactive speed exercises led to excitement, a spirit of competition, and fast performance.

Recommendations:

1- Emphasis on the use of speed exercises in all their forms, which affect the physical aspect and thus affect the endurance of fast skill performance in women's futsal.

2- Providing competitive and recreational exercises in order to develop the physical and skill aspects of women's futsal.

Author's declaration:

Conflicts of interest: None

We confirm that all tables and figures in this article are ours and written by the researchers themselves.

Ethical-Clearance: this manuscript approved by local ethical committee of physical education and sport sciences college for women on (August /2023)

Author's contributions:

All contributions of this study were done by the researchers (B.M., F.A. and S.A.) who get the main idea and work on writing and concluding also with number of experts, Ahmed Dhiab (College of Economics and Management/ University of Baghdad) in Statistics, Nasser Yasser in revision, Nour Riadh in translating, Haifaa Ahmed in proofreading

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References:

1-Zeina Abdulkareem Abbas, & Fatima Abid Malih. (2021). An analytical study of (Smart Tennis Sensor) technical data and its relationship to the serving accuracy of wheelchair tennis players. Modern Sport, 20(2), 0137. <https://doi.org/10.54702/msj.2021.20.2.0137>

2-Maarib Jawad Kadhim , Fatimah Abed Malih (2022) The effect of special exercises on some of the perceptual-kinesthetic abilities of the performance of the counter-attack in the foil weapon for female students. *Revista iberoamericana de psicología del ejercicio y el. ISSN 1886-8576, Vol. 17, N°. 4, pages 161-164.* <https://www.riped-online.com/articles/the-effect-of-special-exercises-on-some-of-the-perceptualkinesthetic-abilities-of-the-performance-of-the-counterattack-in-the-foil-90448.html>

3-Maarib Jawad Kadhum, & Fatimah Abed Malih. (2022). The effect of mental speed drills on some visual abilities in shish weapon players. *Modern Sport*, 21(4), 0051. <https://doi.org/10.54702/ms.2022.21.4.0051>

4-Mays Hameed Taha, & Liqaa Abdullah Ali. (2020). The relationship of complex skills to positive thinking among female futsal players. *Modern Sport*, 19(1), 0118–0126. <https://doi.org/10.54702/msj.2020.19.1.0118>

5-Fatimah Abed Malih, and Marib Jawad Kadhim. (2016). Design and manufacture of the electronic device to measure the compatibility and speed of motor response lower limbs fencing. *The Swedish Journal of Scientific Research*, P:15 <https://sjsr.se/en/issue.php?issue=26>

6- Fatimah Abed Malih. (2008). The effect of vehicle exercises on the development of the cognitive harmonic ability of the arm and leg armed with fencing. *Journal of Physical Education Studies and Research*, pp. 109-125. Retrieved from <https://www.iasj.net/iasj/article/54050>

7-Fatima Abed malih, Nour Hatem, and Aseel Naji. (2017). Design and manufacture of optical motion meter for back stabbing chips. *Journal of Physical Education Studies and Research*, pp. 346-358. Retrieved from <https://www.iasj.net/iasj/article/147725>

8- Fatimah Abed Malih, and Susan Sadeq. (2015). DESIGNING AND MAKING DEVICE RUBBER ROPES TO DEVELOP THE SPECIAL STRENGTH FOR FENCING PLAYERS. *The Swedish Journal of Scientific Research*, 7, p. 26. Retrieved from <https://sjsr.se/en/issue.php?issue=26>

9-Sadiq Jaafar Sadiq. (2015). Designing a test to measure the skill performance of futsal athletes, College of Basic Education, Department of Physical Education and Sports Sciences, Al-Mustansiriya University. P:2

10- Mohammed Musarhad ALi, & Raed Dawood Salman. (2023). A comparative study of technological excess on the national futsal team in Iraq Preparation of researchers. *Modern Sport*, 22(1), 0012. <https://doi.org/10.54702/ms.2023.22.1.0012>

11- Mohsen, Z.Z., & Maleh, F.A. (2020). Test design to measure the cognitive processing speed of table tennis players. *Journal of Human Sport and Exercise*, 15(2proc), S154-S161. doi: <https://doi.org/10.14198/jhse.2020.15.Proc2.05>

12-Hawraa Falah Challoub. Iman Sabeeh. (2021). Standard score for physical tests and their relationship to the achievement of two activities of 100 m and weight throwing for first-level students of the College of Physical Education and Sports Sciences for women. *Modern Sport*, 20(2), 0015. <https://doi.org/10.54702/msj.2021.20.2.0015>

13-Israa Ali Jumaah & Fatimah abed malih (2022). Analytical study of the reality of the application of administrative automation in sports clubs. *SPORT TK-Revista EuroAmericana de Ciencias del Deporte*, 11, 56. <https://doi.org/10.6018/sportk.526801> .

14- Wajdan Saeed, Fatimah Abed-Maleh, Hoda Shehab Jary. (2019). Effect of Sponge Cylinder Exercises on The Rubber of Working Muscles to Perform Human Wheel Skill in Technical

Gymnastics. Indian Journal of Public Health Research and Development Scopus coverage years ISSN:0976-0245E-ISSN: 0976-5506 Subject area: Medicine, Volume 8 Number 4 October-Dec. <http://dx.doi.org/10.5958/0976-5506.2019.01350.0>

15- Jian Ahmed, & Sahar Hurr Majeed. (2022). Impact of a learning program based on a constructive learning model on basic offensive abilities of some students in basketball. *Modern Sport*, 21(3), 0136. <https://doi.org/10.54702/msj.2022.21.3.0136> .

16- Diana Ghanim, & Aseel Jaleel. (2022). The effect of special exercises in developing some physical abilities and achievement of the long jump under 20 years for young women. *Modern Sport*, 21(1), 0092. <https://doi.org/10.54702/msj.2022.21.1.0092> .

17- Sarah Imad Abdul-ameer, & Iman Sabeeh. (2021). The effect of special exercises in developing the strength endurance of the arms of the national team players with the goal ball for the blind. *Modern Sport*, 20(3), 0134. <https://doi.org/10.54702/msj.2021.20.3.0134>

18- Mohsen M. s. (2017). Overlapping exercises using the random and distributed method and its impact on developing agility and dribbling skills in indoor football for emerging players of Al-Shuala Sports Club. *Modern Sport*, 16(2), 15. Retrieved in from <https://jcopew.uobaghdad.edu.iq/index.php/sport/article/view/59>

19- Muqdad Al-seid, Saif Kareem, & Zahraa Khalid. (2022). Predicting the contribution rate of the most important anthropometric measurements in the performance of some football skills for young players. *Modern Sport*, 21(1), 0032. <https://doi.org/10.54702/msj.2022.21.1.0032>

Appendix Assistant team names (1)

Name	Specialization	Work place
Sabah Ahmed Walid Abbas	Asst coach	Rusafa Education Directorate
Dham Mohammed Ahmed	Teacher \ physical education	Ministry of Education/Karkh Education Directorate
Hoda Mkhaif Hamza	National team player/futsal player	.Student/Al-Qadisiyah University
Muhammad Taqi Munadhil	Student\ M.A	University of Baghdad / College of Physical Education and Sports Sciences

Appendix model of training units (2)

The intensity of training unit (84%) the goal of the unit / transitional transition, speed of the speed of speedometer-ship speeds of time / speed (/ s): (Tuesday 39.36 minutes), (Thursday 30 minutes)

Day	goal	Exer cises	Performa nce time	Trainin g size	Inte sity	Rest time	Total time

						Between repetitions	Between groups	
Saturday	Response speed: translational speed, kinetic speed	1	15 sec.	2×3	82 %	45 sec.	.min 1	6.30
		2	15 sec.	2×3		45 sec.	.min 1	6.30
		13	15 sec.	2×3		45 sec.	.min 1	6.30
		15	15 sec.	2×3		45 sec.	.min 1	6.30
Tuesday	Response speed: translational speed, kinetic speed	5	12 sec.	3×4	84 %	30 sec.	.min 1	9.54
		11	12 sec.	3×4		30 sec.	.min 1	9.54
		3	12 sec.	3×4		30 sec.	.min 1	9.54
		14	12 sec.	3×4		30 sec.	.min 1	9.54
Thursday	Response speed: translational speed, kinetic speed	8	10 sec.	3×3	86 %	30 sec.	.min 1	7.30
		9	10 sec.	3×3		30 sec.	.min 1	7.30
		6	10 sec.	3×3		30 sec.	.min 1	7.30
		4	10 sec.	3×3		30 sec.	.min 1	7.30

/ Note intensity is controlled by increasing performance speed any increase in frequency in performance

تأثير تمرينات السرعة التفاعلية في تطوير بعض مهارات كرة القدم الصالات للسيدات

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1&2 جامعة بغداد/ كلية التربية البدنية و علوم الرياضة للبنات
3 جامعة السلطان قابوس/ كلية التربية - عمان

اصبحت سرعة المهارات مرتبطة بالأساليب الحديثة بين اللعب الفردي والجماعي وأصبح كل منها يخدم الآخر خطياً. ومن خلال متابعة الباحثات لاحظت بأن هنالك ضعفاً كبيراً في سرعة أداء والبطيء في التحضيرات الذهنية التي تلعب دوراً كبيراً في فهم والاستعداد الذهني والذي يرتبط بسرعة اتخاذ القرارات اثناء اللعب وكذلك ضعف السرعة البدنية للاعبات وبدوره اثر على الأداء المهاري لدى لاعبات الاندية العراقية التي تعد الرافد الاساسي للمنتخب الوطني. وهدفت الدراسة التعرف الى تأثير تدريبات السرعة التفاعلية في أداء بعض المهارات لدى لاعبات كرة القدم صالات تحت 20 سنة للموسم الرياضي 2022-2023 في القاعة المغلقة في وزارة الشباب والرياضة في العاصمة بغداد. استعمل المنهج التجريبي بأسلوب الضبط المحكم مجموعتين متكافئة تجريبية وضابطة ذات الاختبار القبلي والبعدي على عينة البحث من لاعبات نادي الزوراء للموسم الرياضي 2023 والبالغ عددهن 12 لاعبة تم تقسيمهن بأسلوب القرعة الى مجموعتين وبواقع 6 لاعبات في كل مجموعة، وتم اجراء التأكد من التوزيع الطبيعي لعينة البحث وبعد اجراء الاختبار القبلي ومن ثم تطبيق تمرينات السرعة التفاعلية والاختبار البعدي استنتجت الباحثات: 1- تمرينات السرعة التفاعلية ادت الى تطوير سرعة أداء مهارات الدحرجة والمناولة والتهديف داخل أداء واحد في كرة القدم الصالات للسيدات. 2- استخدام تمرينات السرعة التفاعلية ادت الى الاثارة والتشويق وروح التنافس والأداء السريع، وهذا ما يحقق احد اهداف التنمية المستدامة للامم المتحدة في العراق (التعليم الجيد). لذا توصي الباحثات بـ 1- استخدام تمرينات السرعة بكل أشكالها والتي تؤثر على الجانب البدني وبالتالي تؤثر في تحمل الاداء المهاري في كرة القدم الصالات للسيدات. 2- اعطاء تمرينات تنافسية وترويحية من اجل تطوير الجوانب البدنية والمهارية في كرة القدم الصالات للسيدات.

مستخلص البحث

الكلمات المفتاحية: السرعة التفاعلية، المهارات في كرة القدم للصالات.

الكلمات المفتاحية