



The relationship of motor response-ability to the level of skill performance for the female futsal players of Al-Zawraa Sports club

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Abstract

The current study dealt with identifying the type of relationship between two variables, which are the motor response ability and the skill performance of the players of the Al-Zawraa Futsal Club, which is participating in the Iraqi Premier Futsal League for Women in the (2022-2023) season. The researchers used the descriptive approach in a comparative manner to suit the nature of the research, as they conducted a test of the two variables. After ensuring the validity and suitability of the tests for the research sample by extracting the scientific foundations for the tests that were applied to (70 female athletes), while the main experimental trial for the research sample included (16) female players who performed the motor response ability test with the skill performance test, and after extracting and processing the results, it was found that there A positive and reciprocal relationship between the two variables, as skill performance is affected by the level of combinatorial abilities.

Keywords: coordination, quick response ability, skills performance, futsal.

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Introduction

Football is the most important game in our contemporary and modern times, as it has received great and noticeable attention from specialists and workers in the field of this game, in addition to the diversity of games derived from football, such as football tennis, street football (3 vs. 3), in addition to indoor football, which enjoys widespread popularity and has developed significantly as a result of the use of modern methods and foundations for learning and diversity in training and education methods and methods according to modern scientific programs that have a clear impact on developing the level of players' performance. The use of modern methods and techniques and appropriate exercises to develop this game is one of the most important aspects on which the process of progress and advancement is based, in addition to the fact that knowing and analyzing the characteristics and aspects that are to be developed is one of the basic necessities to obtain an effective impact in the game of indoor football, which is one of the games with many requirements and high levels. (Easa et al., 2022)

Knowing the level of abilities (physical, motor and mental) in addition to the skill levels of the players is considered a basic necessity for every coach, specialist and researcher in indoor football in order to know the starting point on which the training programs are built. (Kazim et al., 2019)

The coordination abilities are (T. S. S. Ibrahim 2022) They are psychological and physical conditions for controlling skillful behaviors, or they are qualifications and conditions that lead to reflecting the quality of the sensorimotor system and the extent of its quality or lack thereof, and There is a group of coordination abilities, and one of these abilities is the ability to quickly respond to movement, which is explained by Mathews (Matthews, 2012, p. 126) It is the ability to perform movements quickly after hearing or seeing signals (audio, visual) with the aim of completing a motor task as quickly as possible, and it's explained by Asaad and Samer (Asaad Lazem, 2023, p. 49) & (Shukur et al., 2022) It is the player's ability to link more than one skill together with a high level of fluidity, accuracy and speed during performance. Also, identifying the relationships between the player's physical, motor and skill abilities has a positive impact on developing training programs. (Salman et al., 2022) The researchers reviewed a number of previous studies that benefited and enriched the researchers and the research. The study concluded that: (Al-Din, 2021, pages 134-158) The quality of technical and tactical performance of football buds depends to a large extent on their coordination abilities. (Salman et al., 2022) & (T. S. S. Ibrahim 2022) and the study (Mahdi Fadel Mohsen, Sadiq Jaafar Sadiq, 2023, pages 272-286) that showed the effectiveness of developing the coordination abilities of the research sample using an educational sample field, in addition to the fact that the lack of leadership exercises affects the players' performance. (2020). The current study aims to identify the type of relationship between motor response ability and skill performance of female futsal players. From the previous studies presented, the importance of the research for the researchers was shown in knowing the type of relationship between motor response ability and skill performance of female futsal players. (Mondil et al., 2023)

Method and tools

The method is the means or path that the researcher takes to solve the research problem, and the nature of the problem imposes a specific method that the researcher uses to reach the truth (S. S. Ibrahim, Ahmed, and Shehab 2024) Therefore, the researchers used the descriptive approach to study the correlational relationships as it is an appropriate approach to achieve the objectives and its suitability to the nature of the study. The research sample was chosen intentionally, that, that part of the community that is carefully selected according to sound scientific rules and foundations, so that it correctly represents the research community(S. S. Ibrahim 2021)

The research sample consisted of Al-Zawraa Sports Club players for the women's futsal team for the sports season (2022-2023), numbering (18) players, as two players were excluded for participating in the exploratory experiment. Table (1) shows the size of the research sample and the exploratory experiment and their percentages (Haider Talb Jasim, Hantosh, and Ibrahim 2021)

Table (1)
The sample of the study

Sample	Details	Percent
The Society	The clubs which are participating in Iraqi Futsal women's league 2022-2023 (8) Clubs	%100
Sample of this study	AL Zawraa SC	%11.42
Exploratory experiment	Air Force SC	%1.42

The researchers extracted the scientific bases for the tests, as the experiment of verifying the validity of the test and extracting the scientific bases was applied to (70) female players from the Iraqi league.(Ali, Hameed, and Ibrahim 2020) The validity was extracted through the apparent validity of the tests by distributing the test form to the specialized experts to know that the test measures the characteristic or goal for which it was set. In addition to that, the researchers extracted the discriminating power of the test, and Table (2) shows the discriminating power of the research tests (Easa, Shihab, and Kahdim 2022)

Table (2)
Discriminatory ability of research tests

No	Test	Upper		Lower		t	sig	sign
		mean	Std. Deviation	mean	Std. Deviation			
1	Responce Time	0.108	1.008	0.065	0.367	-22.057	0.000	positive
2	Skill performance	0.109	0.854	0.081	0.46	12.579	0.000	positive

df(36)

While the researchers extracted the reliability coefficient for the tests through testing and retesting, as reliability is one of the most important scientific foundations on which a good test is based (Talib Jasim, Hayder Hussein, and Saad Ibrahim 2022), and the (Salman, 2018, page 187) pointed to The stability of the test is the accuracy of the test in measurement and observation and its lack of contradiction with itself, as well as its ability to give the same or close results Results if it is re-applied to the same individuals and under similar conditions. (Asliwa, Ibrahim, and Shehab 2024)

Table (3) shows the stability coefficient for compatibility and skill tests (Alkazaly and Altay 2023; Lect Samer Saad Ibrahim, Salam Hantosh, and Talb Jasim n.d.)

Table (3)
Correlations of coordination & skills performance test

N	Tests	Correlations	sig	Status
1	Response Time	0.599**	0.000	positive
2	Skills performance	0.577**	0.000	positive

Confidence INTERVAL Percentage 95%, df)68=

While the objectivity of the two tests is highly objective, the pilot experiment was conducted on Friday 1/6/2023. While the motor response ability and skill performance tests for the study variables were conducted on Friday 1/27/2023. In the Women's Hall at the Ministry of Youth and Sports, all research procedures extended for the period from 1/1/2023. To 1/7/2023. The main experiment tests were as follows:

- Response Time Test (Zayer, The effect of exercises using an assistive device in developing the speed of motor response and scoring accuracy among young football players, 2014, p. 45)
- Skills Performance Test (Al-Matalab, 2016, p. 78).

The researcher pay fully attention to keep the environment of the test under control(Ali, Hameed, and Ibrahim 2020).

Results

The researchers extracted the research results after collecting the data through tests and processing them statistically using the statistical package (Spss), as shown in the following tables:

Table (4)
Shows the statistics of the tests

N	Tests	measure	mean	Std. Deviation	Skewness	Upper	Lower
1	Response Time	second	0.651	0.199	0.156	0.990	0.340
2	Skills performance	Point + Second	1.039	0.134	0.736	1.320	0.830

Confidence INTERVAL Percentage 95%

**Table (5)
Correlations**

N	Tests	Correlations	sig	Status
1	Response Time	*0.565	0.022	positive

Confidence INTERVAL Percentage 95%

Discussion

From Table (4), we notice that the distribution of the research sample is a normal distribution because the level of skewness is within the limits of (± 1), in addition to the fact that the sample is homogeneous because it plays in the same category and the same team, while in this study we do not need to perform the equivalence between the variables (motor response and skill performance) because we aspire to identify the existence of the relationship or not.(Hayder Talib Jasim, Abed, and Ibrahim 2023)

There is a significant correlation between the ability to quickly respond to motor movements and skill performance, (Obaid et al., 2022) as shown in the results in Table (5), which show a significance level of (0.022), which is less than the level of (0.05), and this explains the significance of the correlation(S. S. Ibrahim 2021).

The researchers attribute the existence of a correlation between the ability to respond to motor skills and skill performance to the fact that the ability to respond to motor skills is one of the harmonious abilities that positively affects skill performance, and it confirmed by (Witkowski, etal, 2021, pp. 15-25) That the compatibility capabilities are one of the most important main pillars of skill performance, as they form a common denominator with other elements to contribute to the player reaching the highest athletic level according to his physical capabilities (S. Ibrahim, Asleawa, and Farhan 2024) Creative people are characterized by a high degree of coordination. The more a futsal player has a high level of coordination abilities, of which motor response is one, the better his ability to learn and perform different playing skills such as (dribbling, handling, scoring and dribbling), since these skills require a degree of neuromuscular coordination and coordination specific to each skill.(S. S. Ibrahim, Ahmed, and Shehab 2024) and it's confirmed by (Naji Kadhim, Ali Saad, Samer Saad, 2020, pp. 5927-5934) However, basic skills are developed through various exercises, one of which is coordination exercises and Samer Saad Agreed with this opinion (S. S. Ibrahim 2021) and last the Movement or skill is related to the individual's motor, physical and coordination abilities and all of his internal systems, and plays an important role in performing skills.(Hayder Talib Jasim, Hussein, and Ibrahim 2021)

EXTENSION (1) Research Tests

1- Response Time Test

Purpose: Measure the Response time

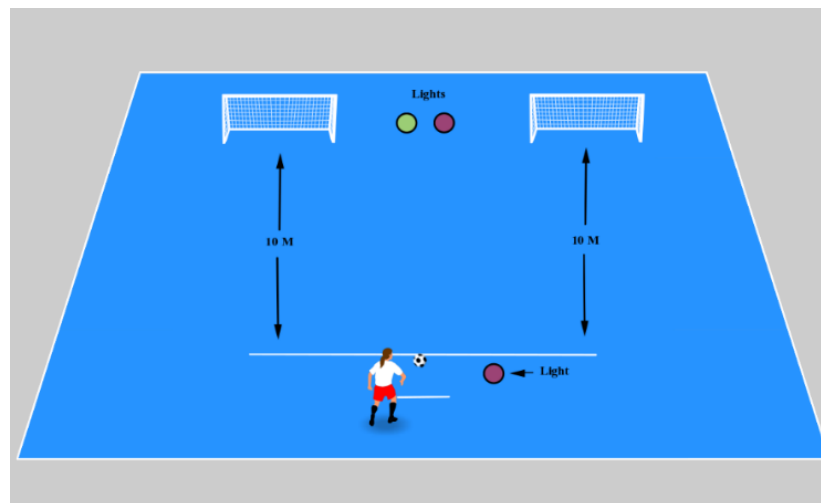
Tools:

- Balls
- Small Goals
- Camira Video 300/sec
- Plazepod
- Playground
-

Performance:

The player stands (50) cm away from the ball and in front of the light device. On both sides of the device are small targets measuring (120 cm) in width and (75 cm) in height. The player kicks the ball towards the small target which is (10 m) away from the location of the ball in the direction determined by the light (i.e. if the right light is on, the player kicks the ball towards the right target and vice versa). Each player is given three attempts and the best attempt is counted. A video camera is placed on the side for the purpose of measuring the time from the moment the stimulus appears until the moment the ball leaves the player's foot.

Score: The time for a correct response is calculated from the moment the stimulus appears until the moment the ball leaves the player's foot.



Figer (1)
Showing how to perform the test

2- Skills Performance Test

Purpose: to measure the accuracy of speed of control and dribble and shooting the ball.

Tools:

- Futsal balls
- Whistle
- Colored Rope
- Saquar 1x1m
- Small goal 75x50cm
- Small area 1x1m for passing

Performance:

The player stands behind the designated suppression zone line, which is 8 m away from the ball launcher. After giving the start signal, the ball launcher throws the ball (ground crawling ball) towards the suppression zone. The player advances into the suppression zone, trying to stop the ball (suppression) by muting the ball with the bottom of the foot (sole), then changes direction to run with the ball (roll) by pulling the ball with the bottom of the foot (sole), until he reaches the handling zone (1) to handle the ball towards the small target, trying to hit the middle part of the target. All testers perform the first attempt in succession, then move to perform the second and third attempts through the handling zones (2) and (3) in succession for all testers and in the same manner performed in the first attempt.

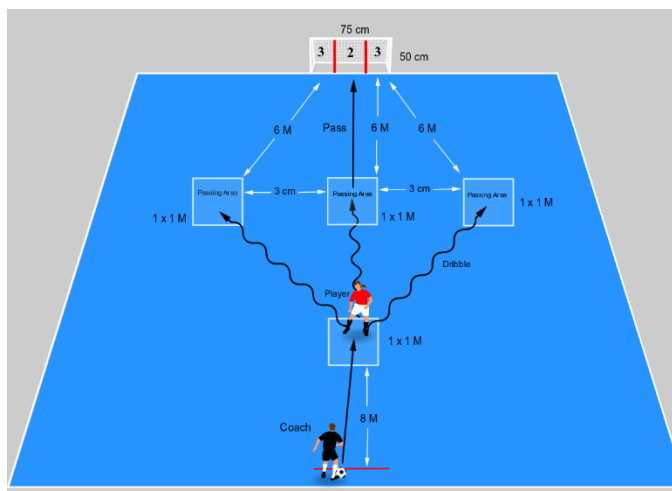
Terms & conditions

- The ball movement must be stopped within the designated area for suppression.
- The ball must be stopped by muting the ball under the foot (sole).
- The tester must perform (rolling) by pulling the ball under the foot (sole).
- If the ball goes out of the tester's control during (rolling), the tester will be given (zero) points.
- The handling skill must be performed within the designated areas for handling and according to the sequence (1-2-3).
- The tester must perform the test as quickly as possible.

Score:

- The player is given (three attempts).
- The player is given (one mark) for successful control.
- The player is given (zero) marks for failed control.
- The player is given (one mark) for successful dribble.
- The player is given (zero) marks if the ball goes out of the player's control during dribbling.
- The player is given (three marks) when hitting the middle part of the goal.
- The player is given (two marks) when hitting one of the outer parts of the goal.
- The player is given (one mark) for the handling in which the ball touches one of the posts or the crossbar.
- The player is given (zero) marks for the failed try.

- In terms of accuracy, the maximum accuracy marks are (15) marks (3) of which are for controlling, (3) for dribbling, and (9) for shooting.
- In terms of time, it is extracted from the digital camera film through the (Kinovia) program placed on the computer, where it is calculated in (1/1000) of a second.
- Unit of measurement (degrees/second).



Figer (2)
Showing how to perform the test

References

- Ahmed Reda El-Sayed Ahmed. (2022). The effect of developing some coordination abilities on the level of performance in sports shows for students of the Faculty of Physical Education, Benha University. Benha University, 20.
- Ali, Naji Kadhim, Saad Abdul Hameed, and Saad Ibrahim. 2020. "The Effect of Attacking Tactical Skill Exercises in the Skills of Dribbling and Shooting for Youth Football Players." *International Journal of Psychosocial Rehabilitation* 24(03).
- Alkazaly, Ahmed, and Usama Altay. 2023. "Validity And Reliability of Field and Wingate Tests to Measure the Anaerobic Power of The Upper Limb Muscles." *Journal of Physical Education* 35(1): 1–11. doi:10.37359/jope.v35(1)2023.1455.
- Al-Shawk, Fathi. (2004). *Researcher's Guide to Writing Research in Physical Education*. Baghdad: University of Baghdad - College of Physical Education.
- Asliwah, A.M.D. Wissam Najib, M.D. Samer Saad Ibrahim, and M.M. Sabreen Hamed Shehab. 2024. "An Analytical Study of the Scoring Accuracy of the Iraqi National Football Team Players in the First Stage of the 2026 World Cup Qualifiers." *Sports Culture* 15(Special): 348–55.
- Baath Abdel-Muttalib. (2016). Design and standardization of a composite skill test battery for futsal players for Baghdad clubs, excellent class. Artouha Ph.D. - College of Physical Education and Sports Sciences - University of Baghdad, 78.
- Baath Abdel-Muttalib. (2016). Design and standardization of a composite skill test battery for futsal players for Baghdad clubs, excellent class. Ph.D. Thesis - College of Physical Education and Sports Sciences - University of Baghdad, 78.
- Easa, F. A. W., Shihab, G. M., & Kahdim, 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.
- Easa, Fahem Abdul Wahid, Ghadah Muayad Shihab, and Mohammed Jawad Kahdim. 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 psychology del ejercicio y el deporte* 17(4): 239–41.
- Global Council of Sport Science. (18 6, 2017). Global Council of Sport Science. Retrieved from Global council of sport science: <https://gcss.se/article-de.php?id=73>
- Ibrahim, Samer Saad, Wesam Najeeb Asleawa, and Ehab Mohammed Farhan. 2024. "THE Effect of special exercises Assistive tools Taha Development Meter Balance Security Al-Zawraa Club Players." *International Development Planning Review* 23(1): 912–32.
- Ibrahim, Samer Saad, Zahra Shehab Ahmed, and Sabreen Hamed Shehab. 2024. "The Effect of Using Skill Exercises in Both Static and Dynamic Styles on Some Basic Skills for Female Iraqi National Team Players (U-17) in Soccer." *Journal mustansiriyah of sports science* (5).
- Ibrahim, Samer Saad. 2021. "Comparing Some 10m Distance Acceleration Forms in Futsal Female Players." *Journal of Physical Education* 33(2).

- Ibrahim, Teacher Samer Saad. 2022. "Using Compound Exercises (Skill-Mental) in Specific Spaces and Their Effects on Some Compound Skills of Female Futsal Players." *European Journal of Sports Science Technology* 12(8): 350–60.
- Jasim, Haider Talb, Salam Hantosh, and Samer Saad Ibrahim. 2021. "The Role of Higher Management of the General Administration of the Ministry of Youth and Sports in the Decision-Making Process." *Al-Rafidain Journal For Sport Sciences* 24(74).
- Jasim, Hayder Talib, Alameer Hayder Hussein, and Samer Saad Ibrahim. 2021. "Administrative Climate and Its Relationship to Psychological Stress among Workers in Baghdad Premier League Football Clubs." *Revista iberoamericana de psicología del ejercicio y el deporte* 16(6): 1–3.
- Jasim, Hayder Talib, Sanaa Rabeea Abed, and Samer Saad Ibrahim. 2023. "Psychological Flexibility and Its Relationship to Competition Anxiety among Coaches of Iraqi First-Class Football Clubs." *Revista iberoamericana de psychology del ejercicio y el deporte* 18(4): 368–70.
- Kamel Mohammed Al-Maghribi. (2009). *Scientific research methods*. Jordan - Amman: Dar Al-Thaqafa for Publishing and Distribution.
- 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).
- Lect Samer Saad Ibrahim, Asst, Asst Salam Hantosh, and Haider Talb Jasim. The Role of Higher Management of the General Administration of the Ministry of Youth and Sports in the Decision-Making Process.
- Mahdi Fadel Mohsen, Sadiq Jafar Sadiq. (2023). The effect of an educational field with an electronic sensory system on some coordination abilities in indoor soccer for youth. *Journal of the Faculty of Basic Education*, 272-286.
- Mahdi Fadel Mohsen, Sadiq Jafar. (2023). The effect of an educational field with an electronic sensory system on some coordination abilities in indoor soccer for youth. *Journal of the Faculty of Basic Education*, 272-286.
- Mathews. (2012). *Masurement of physical education* 5 edition. Saunders com – pony, - Philadelphia., 126.
- Mohamed Emad El-Din. (2021). The percentage of contribution of coordination abilities in some basic skills for young football players. *Journal of Physical Education and Sports Sciences - Benha University*, 134-158.
- Mohammed Ali Majeed Zayer. (2014). The effect of exercises using an auxiliary device in developing the speed of motor response and scoring accuracy among young football players. PhD thesis - College of Physical Education and Sports Sciences - University of Baghdad, 45.
- Mohammed Ali Majeed Zayer. (2014). The effect of exercises using an auxiliary device in developing the speed of motor response and scoring accuracy among young football players. PhD Thesis - College of Physical Education and Sports Sciences - Al-Qadisiyah University, 45.
- Mondil, M. T., Prof, A., & Hussein, L. (2023). The Effect Of Using An Innovative Device On

- Learning The Movement Of The Feet And The Speed Of Kinetic Response, And Some Badminton Skills For Female Students. *Pakistan Heart Journal*, 56(02), 156–164.
- Naji Kadhim, Ali Saad, Samer Saad. (2020). The effect of attacking tactical skill exercises in the skills of dribbling and shooting for youth football players. *International Journal of Psychosocial Rehabilitation*, 5927-5934.
- 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.
- Saad, S. (2021). Comparing Some 10 m Distance Acceleration Forms in Futsal Female Players. *Journal of physical education*, 163-170.
- 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), 4606–4609. <https://doi.org/10.9756/INTJECSE/V14I5.555>
- Samer Saad Asaad Lazem. (2023). Futsal. Baghdad: Thaer Al-Asami Foundation for Printing and Publishing.
- Samer Saad Thamer Hammad. (2019). The reality of administrative creativity among the administrative bodies of the first division football league clubs in Baghdad. *Journal of the College of Physical Education*, 121-164.
- 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.
- Talib Jasim, Hayder, Alameer Hayder Hussein, and Samer Saad Ibrahim. 2022. “ADMINISTRATIVE CLIMATE AND ITS RELATIONSHIP TO PSYCHOLOGICAL STRESS AMONG WORKERS IN BAGHDAD PREMIER LEAGUE FOOTBALL CLUBS.” *Iberoamerican Review of Exercise and Sports Psychology* 17(1): 1.
- Thaer Dawood Salman. (2018). Statistical methods for calculating the validity and reliability of tests and measures using IBM SPSS Statistics Version24. Najaf Ashraf: Dar Al-Diaa for Printing and Deign.
- Witkowski, etal. (2021). A comparative study of selected motor cordinative abilities among football young players. *international journal of sport sciences & fitness*, 15-25.