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Construction of a Selective Attention Test and Its Relationship to Performance of Some Basic Skills Among Youth Futsal Players

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Abstract

This study aims to develop a test for selective attention among young futsal players, and to identify relationship between selective attention and their performance of some basic skills. The researcher used descriptive approach with a correlational style, as it is suitable for nature of study, which seeks to reveal relationship between two variables without introducing any experimental variables. This approach is considered one of appropriate approaches in fields of measurement and evaluation in sports sciences. Research community was determined in a purposive manner, and they are youth category futsal players in Diyala Governorate, numbering 82 players distributed across six clubs, namely Diyala, Al-Khalis, Jadida Al-Shatt, Al-Muqdadiya, Khanaqin, Al-Shaheed Arkan. After drawing lots, a pilot sample of 10 players was selected to verify clarity of test procedures, ensure its validity, determine time taken, and identify technical and organizational problems. 40 players were selected for test construction sample to extract scientific properties of test, such as validity, reliability, and discrimination, and to analyze results statistically accurately. 32 players were selected to administer final test to study relationship between selective attention and performance of some basic skills and to extract final results of study. Research concluded that there is a significant correlation between selective attention and skill performance among futsal players. This demonstrates importance of cognitive aspect in improving skill performance, the researcher recommends necessity of focusing on developing selective attention in players through situational training that relies on visual stimuli during performance, test designed in this research is adopted as a scientific evaluation tool in assessing players.

Keywords: Selective Attention Test, Basic Skills, Futsal Players.

Introduction

Modern sports science is witnessing a growing interest in studying cognitive and intellectual factors that influence level of skill performance in players, as athletic performance no longer depends solely on physical aspect. It has become closely linked to mental processes such as attention, perception, and decision-making. Which is one of fundamental pillars of successful performance in competitive situations. Especially in fast-paced, stimulating games like futsal , selective attention is one of most important of these cognitive processes. As Abdul Karim (2022, p. 83) points out, " Player's ability to choose important stimulus from among a group of multiple stimuli

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while ignoring distractions this directly contributes to accuracy of performance and speed of response". Basic skills in futsal, such as dribbling, passing, and shooting, require a high level of concentration and constant attention due to limited space and rapid changes in situation. This puts player in a constant state of information processing and quick decision-making. Therefore, any weakness in selective attention may negatively affect accuracy of skill performance. Al-Zubaidi (2020, p. 211) believes that "Skill tests are among important scientific tools in sports measurement and evaluation". It is used to determine level of players accurately and objectively. Especially when linked to cognitive factors such as attention This provides more accurate and realistic results regarding players' actual performance level. The researcher believes that studying relationship between selective attention and skill performance in futsal represents an important step in understanding nature of interaction between cognitive and motor aspects in players. Hence, importance of this research lies in identifying relationship between selective attention and performance of some basic skills among young futsal players. This contributes to development of training and evaluation methods in this field.

In light of rapid development in training and testing methods in sports field skill performance in team sports is characterized by complexity due to speed of play and multitude of stimuli, need arose to study cognitive and intellectual factors affecting level of player performance. In particular, selective attention factor, which is an important mental process in directing player's focus towards performance-related stimuli while ignoring surrounding distractions was observed. Through the researcher's monitoring of performance level of youth futsal players, a variation in accuracy of skill performance (dribbling, passing, scoring) was noted, despite their similar physical and skill levels. This suggests that level of selective attention may influence this variance. Accordingly, research problem is defined by following question: What is relationship between selective attention and performance of some basic skills among young futsal players?

Research objectives to developing a test for selective attention in youth futsal players. Identifying relationship between selective attention and performance of some basic skills dribbling, passing, scoring among youth futsal players. Research assumptions there is a statistically significant correlation between selective attention and performance of basic skills dribbling, passing, scoring among youth futsal players.

Research Methodology

Descriptive correlational approach was adopted because it is suitable for nature of problem and achieves research objectives. Research community was determined purposively and they are youth category futsal players in Diyala Governorate, numbering 82 players distributed across six clubs: Diyala, Al-Khalis, Jadida Al-Shatt, Al-Muqdadiya, Khanaqin, Al-Shaheed Arkan. After drawing lots, a pilot sample of 10

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players was selected to verify clarity of test procedures, ensure its validity, determine time taken, and discover technical and organizational problems. 40 players were selected for test construction sample to extract scientific properties of test, such as validity, reliability, and discrimination, and to analyze results statistically accurately. 32 players were selected to apply final test to study relationship between selective attention and performance of some basic skills and to extract final results of research, as shown in Table (1).

Table 1. Research community and sample

No.	Sample type	Number	Percentage
1	Research community	82	100%
2	Exploratory sample	10	12.19%
3	Construction sample	40	48.78%
4	Sample application	32	39.02

Designing a Selective Attention Test

After reviewing numerous scientific sources and previous studies related to selective attention and skill performance in futsal, the researcher found no test suitable for research sample that directly measures selective attention during basic skill performance. Therefore, the researcher designed a specific test to measure selective attention associated with skill performance, tailored to nature of game and age group of research sample. test included a set of skill situations linked to visual stimuli to measure player's ability to concentrate, response speed, and accuracy of motor action during performance. After test design was completed, it was presented to a group of 7 experts and specialists in field of testing, measurement and futsal, in order to demonstrate validity of test and its suitability for sample and to make appropriate modifications in preparation for its application and to extract its scientific foundations.

Tests used in research

First: Selective Attention Test: Test Name: Selective Attention Test Associated with Skill Performance. Test objective: To measure level of selective attention among youth futsal players while performing some basic skills. Tools used: Futsal pitch. (5) footballs. Number of signs (6). small goal. Colleague for passing. Color cards (red – blue – green). Whistle. Stopwatch. Results registration form.

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Test specifications: Player performs a series of basic skills including dribbling, passing, shooting, and during performance, visual stimuli appear in form of colored cards. player must respond to correct stimulus as quickly as possible while continuing to perform skill.

Method of performance: (6) markers are placed in a straight line at a distance of (1.5) meters between each marker for purpose of rolling, teammate stands (5) meters away from end of dribbling path, while goal is placed (8) meters away from scoring point. coach stands next to field holding three colored cards (red, blue, green) to be shown randomly during performance, player begins dribbling between markers from starting point. After completing roll, a color card appears suddenly. When blue color appears, player makes a pass to his teammate. When green color appears, he goes directly to aim towards goal. When red color appears, he continues dribbling around an additional target and then returns to complete performance, player is given (6) consecutive attempts during execution of test.

Registration method:

First: Degree of selective attention: Correct response to stimulus = (1) score. Incorrect response = (0) points

Second: Skillful Performance: Correct performance of skill = (2) points. Average performance = (1) score. Incorrect performance = (0) points.

Final grade = Sum of attention scores + Sum of skill performance scores

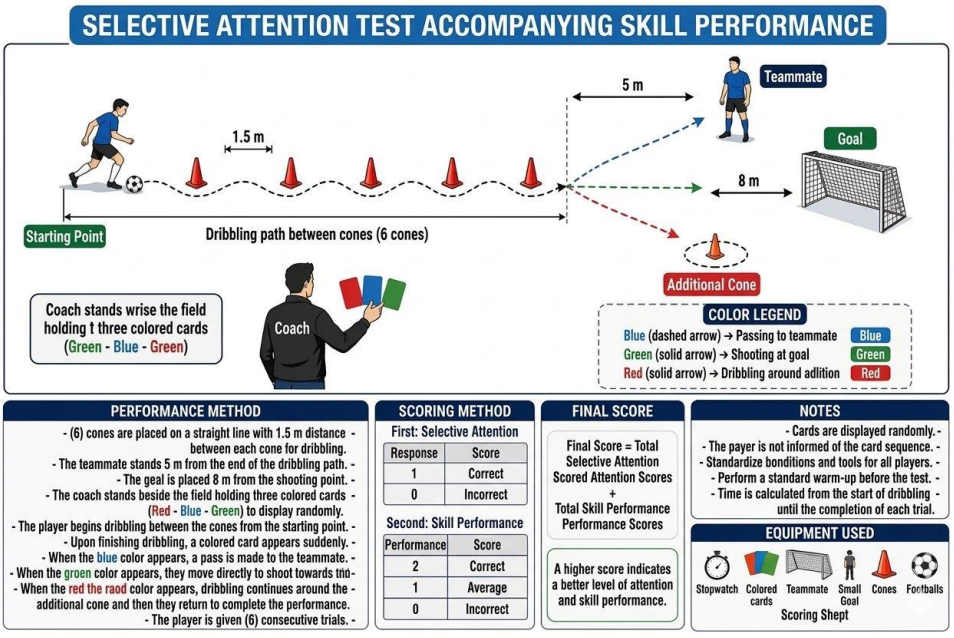


Figure 1. Illustrates selective attention test associated with skill performance

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Scientific basis of selective attention test

Table 2. Shows descriptive statistics for selective attention test

Variable	Number of players	Mean	Standard deviation	Median	Skewness coefficient
Selective attention	40	11.85	2.10	12	0.12

First: Validity: The researcher verified validity of selective attention test associated with skill performance by adopting content validity, as test in its initial form was presented to a group of 7 experts and specialists in field of Measurement and Evaluation and Futsal. This is to gather their opinions on validity of test in measuring selective attention and its suitability to nature of sample. In addition to clarity of performance procedures and registration method Experts unanimously agreed on validity of test and its ability to measure what it was designed to measure. With some minor adjustments made to organization of performance and mechanism for implementing visual stimuli, test will become more accurate and clear before being applied in its final form.

Table 3. Shows content validity of test

Number of experts	Agree	Percentage	Sig.
7	6	85.7%	Sig.

Table 4. Shows correlation coefficients paragraph's relation to the total score

Paragraph/Skill	Correlation coefficient	Significance
Dribbling	0.71	Sig.
Passing	0.76	Sig.
Scoring	0.73	Sig.

Second: Reliability: Reliability of selective attention test was verified using test-retest method, where test was administered to a pilot sample of (10) players from outside main research sample. This will take place on Saturday, February 7, 2026.

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The test was then reapplied to same sample after a suitable period of time and under similar conditions in terms of location, tools and method of performance on Saturday, February 14, 2026. Then correlation coefficient between applied results was calculated. Results showed a high reliability coefficient. This indicates that test has a good degree of stability and reliability and can be depended upon in collecting research data.

Table 5. Shows reliability of the test

Applying	Mean	Standard deviation	Pearson's correlation coefficient	Sig.
First	11.85	2.10	0.88	Sig.
Second	11.92	2.05		

Third: Objectivity: Objectivity of selective attention test was verified by adopting standardized instructions and a clear scoring mechanism for all players during test. In addition to using referees to record scores according to a pre-prepared form After statistically processing results, correlation values between judges showed a high degree of agreement. This indicates that test is fairly objective and gives similar results regardless of who is conducting registration or evaluation process.

Table 6. Shows objectivity between two evaluators

First Evaluator	Second Evaluator	Correlation coefficient	Sig.
11.80	11.95	0.91	Sig.

Table 7. Shows discriminatory power of the test

Group	Number	Mean	Standard deviation	(t) value	Sig.
Upper	11	14.10	1.20	6.45	Sig.
Lower	11	9.30	1.40		

Second: Dribbling test: (Saadallah, 1998, p. 95)

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Test name: Ball Dribbling between (10) cones. Purpose of test to measure player's ability to dribble the ball accurately and quickly while moving between cones. Tools used: Football , stopwatch, (10) appropriate height markers, measuring tape. Method of performance: (10) stakes are set up sequentially in a straight line, with a distance of (1.5 m) between each stake, as shown in Figure (8), player stands behind starting line with ball, and when starting signal is given, he runs with ball between stakes back and forth using his right or left foot or both, as he sees fit. Recording: player's performance time is recorded from moment of starting until end of track, back and forth, time is measured using a stopwatch and recorded accurately to nearest (1/100) of a second.

Third: Passing test: (Kadhim, 2013, p. 75)

Test Name: Passing Accuracy Test towards a Small Target. Purpose of test to measure accuracy of player's ground passes. Tools used: Football, small goal (1 m wide), measuring tape, suitable playing field. Method of performance: A starting line is marked, and a small target (1 m) wide is placed (10 m) from starting line, player stands behind starting line, and when starting signal is given, he passes ball on ground towards small target, player is given a specific number of attempts ranging between (5-10) balls. Registration: Scores are calculated based on number of balls successfully passing through small target. Attempts that hit goalposts are scored lower according to test instructions, player's scores from all attempts are added together to determine final score.

Fourth: Scoring test: (Khalil, 1991, p. 77)

Test name: Target scoring test on overlapping rectangles on a wall. Purpose of test to measure player's scoring skill. Tools used: Three indoor football balls, a smooth wall on which three overlapping rectangles are drawn with dimensions (large rectangle 3m x 2m, middle rectangle 2.20m x 1.50m, small rectangle 1.40m x 1m), and a measuring tape to determine distance. Method of performance: As in Figure (2), player stands behind starting line at a distance of (10m) from wall, then attempts to shoot towards wall using three balls consecutively, starting with ball number (1) and ending with ball number (3), while trying to hit target rectangle. Performance requirements: test begins with ball number (1) and ends with ball number (3), and re-attempts are not allowed. Registration: Player is awarded (3) points if ball hits large rectangle, (2) points if it hits middle rectangle, and (1) point if it hits small rectangle. If ball goes outside three rectangles , it is awarded (0) points .

Pilot study

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Pilot study was conducted on Friday and Saturday February 14, 2026. On a sample of (10) players from outside the main research sample with aim of determining validity of tests used and clarity of their instructions. And ensuring efficiency of tools and procedures used in implementation.

Main Experiment (Application of Tests)

The research tests were applied to application sample of (30) futsal players in Diyala Governorate during period from Friday 20/2/2026 to Saturday 14/3/2026. Application included selective attention tests, dribbling test, passing test, and scoring test were all carried out according to organized scientific procedures and under suitable field conditions. After ensuring readiness of tools used and preparing testing environment in a way that ensures accurate measurement and obtaining data that objectively reflects level of sample members.

Statistical methods
Statistical package SPSS was adopted in extracting and analyzing the results.

Results and Discussing
Presenting results of sample in research variables

Table 8. Shows mean and standard deviation of variables

Test	Mean	Standard deviation
Selective attention	12.40	2.15
Dribbling test	10.85	1.90
Passing test	11.30	2.05
Scoring test	9.75	1.80

Table 9. Shows means, standard deviations and correlation relationships among variables (n = 30).

Variable	Mean	Standard deviation	Its relationship to selective attention (r)	Sig.
Selective attention	12.40	2.15	0.78	Sig.
Dribbling	10.85	1.90		

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Selective attention	12.40	2.15	0.81	Sig.
Passing	11.30	2.05		
Selective attention	12.40	2.15	0.76	Sig.
Scoring	9.75	1.80		

Discussion

Table 9. showed statistically significant positive correlations between selective attention and basic skills under investigation dribbling, passing, and scoring. correlation coefficient between selective attention and dribbling was (0.78), between selective attention and passing was (0.81), and between selective attention and scoring was (0.76). These results indicate that a high level of selective attention among players is directly related to improved skill performance in futsal.

The researcher attributes these results to fact that selective attention is one of the most important cognitive processes that contribute to organizing motor performance because it helps player to select important stimuli within fast-paced and changing playing environment. Ignore unnecessary stimuli This is reflected in accuracy of performance and speed of decision-making. These results can also be explained by nature of futsal, which is characterized by small size of field, speed of play, and abundance of sudden situations. This requires a high level of selective focus to process visual and kinetic information quickly and accurately.

It appeared that passing skill was the most strongly associated with selective attention. This is attributed to constant need for cognitive precision in choosing right teammate and determining timing and trajectory of pass under pressure of competition. While dribbling and scoring showed similar relationships as they also depended on integration of sensory perception and motor response, they were less complex than passing in group situations. This is especially true in futsal, where players are exposed to a large number of simultaneous stimuli, such as movement of teammates and opponents, speed of ball, and constantly changing situations.

These findings align with what Williams & Ford (2021) emphasized "Cognitive processes such as attention play a pivotal role in improving performance quality and decision-making in team sports". Larkin et al. (2020) also demonstrated that "Players with higher levels of attention exhibit more precise skill performance under pressure". Selective attention plays a crucial role in athletic performance; it is a mental process that helps players focus their attention on important stimuli within playing environment and ignore unnecessary ones, thus contributing to improved skill performance.

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This was also pointed out and confirmed by Al-Shammari (2020, p. 90), who stated that "Developing cognitive abilities in players directly contributes to raising level of skill performance in team sports". This type of attention also contributes to accelerating motor decision-making and response accuracy. This positively impacts performance of basic skills such as dribbling, passing, and scoring. In addition to reducing mental distractions and increasing ability to control motor behavior during competition , this was confirmed by (Abdul Rahman & Jassim, 2022 , p. 43) who stated that "Selective attention is one of most important cognitive processes that control quality of motor performance in sports".
It does indeed contribute to accelerating motor decision-making and improving response accuracy. This directly affects performance of basic skills such as dribbling, passing, and scoring. It also reduces mental distraction and increases player's ability to control their motor behavior during fast-paced and changing competitive situations. researcher believes that selective attention is a key factor in improving skill performance of players. Because it helps them focus their attention on important stimuli on field at right time.
This contributes to improving speed and accuracy of motor decision-making and reducing mental distractions during performance. This positively impacts execution of basic skills such as dribbling, passing, and scoring in futsal, it can be concluded that selective attention is a crucial factor in improving skill performance of futsal players. This necessitates its inclusion in modern training programs as part of cognitive-motor training, and not just physical training.

Conclusions

Results showed positive and significant correlations between selective attention and basic skills dribbling, passing, scoring. This indicates that a high level of selective attention directly contributes to improving skill performance of futsal players. Skill of passing was found to be most strongly associated with selective attention compared to other two skills. This indicates that it is most affected by cognitive processes during performance in changing play situations.

Recommendations

It recommends inclusion of special training in selective attention within training sessions for futsal players, given its active role in improving skill performance. Emphasis should be placed on integrating perceptual stimuli (visual and auditory) with skill training during player preparation with aim of improving response speed and decision-making accuracy in competitive situations.

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