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The Impact of Playing Style on the Development of Some Motor Skills and the Handling and Scoring Abilities in Youth Football

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Abstract

The research emphasizes the significance of utilizing playing style to enhance motor skills, handling, and scoring abilities in youth football. This, in turn, may lead to accelerated and more substantial learning outcomes for coaches, optimizing time and effort. The study aims to investigate the impact of playing style on the development of motor skills, handling, and scoring abilities in youth football. The research sample was selected from youth players at the specialized center in Al-Batha district, affiliated with the Sports and School Activity Directorate, Thi Qar Education Directorate for the year 2022-2023. The researchers employed the experimental method with two equivalent groups, the control group using the coach's style and the experimental group using the playing style.Key findings indicate the superiority of the experimental group, implementing the playing style, in developing motor skills, handling, and scoring abilities in youth football compared to the control group employing the coach's style. The researchers recommend further research and studies using playing style, comparing it with other instructional methods in individual and team sports and activities.

Keywords: *Playing Style, Motor Skills, Handling Skills, Scoring Abilities, Youth Football.*

1. Introduction to the Research

1.1 Introduction and Research Significance

Play-based learning stands as a pedagogical approach that considers the psychology of the learner, empowering them to play an active and positive role within educational or training settings. Through this approach, a positive and active role is assigned to the learner within the educational or training unit. This method is characterized by the interaction between the trainer and players, as well as among the players themselves. Notably, it introduces an element of competition among players through organized and practical educational activities and games.

Play-based learning is captivating, increasing learners' enthusiasm for educational engagement. Through this method, learners can develop their cognitive, physical, and motor skills, acquiring precise, rapid, and more effective skills. This approach is enjoyable for learners and is suitable for different age groups, especially for youth.

Football is one of the prominent sports that has gained increasing attention globally across all levels. Researchers continually strive to enhance the game by elevating players' levels in various capacities, including cognitive, motor, and skill-related abilities. These abilities play a crucial role in achieving

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the highest technical level of the game across all age groups, including youth, who represent a pivotal and sensitive stage in their lives as they embark on their journey as future players.

The multifaceted and diverse skill performance in football necessitates the presence of associated motor skills. Possessing these skills aids learners or players in shortening the time required to acquire and master various skills. The absence or deficiency of these motor skills in learners or players clearly reflects a weakness in their skill performance. Therefore, balanced development of all motor skills associated with skill performance is a fundamental aspect of the learning and training process. Coaches must consider this by implementing an educational curriculum that positively influences improving the player's level and instills the motor skills foundation, ultimately enhancing the learner's ability for proficient skill performance.

Based on the foregoing, the significance and need for the research lie in utilizing the play-based learning method to enhance motor skills, handling, and scoring abilities in youth football. This, in turn, leads to accelerated and more substantial learning outcomes, benefiting coaches and optimizing time and effort

1.2 Research Problem

Learning the fundamental skills in football does not solely depend on technical performance but also places significant importance on the motor aspect. Through the researchers' observation and monitoring of some educational and training units for youth players, they noticed that the overall performance of basic football skills, particularly handling and scoring abilities, is evolving but not at a pace aligned with the rapid development of the game. The researchers attribute this to a lack of attention or focus, at times, on methods or exercises that work on developing the motor skills associated with skill performance during educational units. These methods might be a contributing factor to the lower skill performance levels observed in youth football players. Additionally, the researchers observed that some coaches focus on the details of the educational unit and the exercise execution without paying attention to the play aspect, which is considered the most effective as it adds excitement and thrill to attract players and prevent boredom. Therefore, the researchers, in an effort to enrich the skill learning process in football, have opted to utilize the play-based learning method to develop some motor skills, handling, and scoring abilities in youth football in a manner that serves the coach in achieving a higher level of performance.

1.3 Research Objectives

1. To understand the impact of the play-based learning method on the development of some motor skills and handling and scoring abilities in youth football.
2. To identify which of the two methods (play-based learning or the conventional method) developing certain motor skills and honing one's handling and scoring abilities in youth football is magnified by a greater degree through this method.

1.4 Research Hypotheses

1. The play-based learning method and the conventional method have a positive impact on cultivating a repertoire of intricate motor skills, deftly handling the ball, and showcasing unparalleled scoring prowess are among the many facets that are nurtured in the realm of youth football.
2. The play-based learning strategy has an advantage in developing some motor skills and handling and scoring abilities in youth football.

1.5 Research Scope

1.5.1 Human Scope

Youth football players aged (15-16 years) in Thi Qar Governorate, Al-Batha District.

1.5.2 Temporal Scope

The period from June 1, 2023, to September 12, 2023.

1.5.3 Spatial Scope

The research will be conducted at the Batal Ahmad Ghani Football Field in Al-Batha District.

1.6 Definition of Terms

1.6.1 Play-based Learning

A set of organized and directed activities performed by the learner within a specific educational-learning plan to achieve specific educational goals" (139:2)

2. Research Methodology and Field Procedures

2.1 Research Method

The researchers employed an experimental methodology with two equivalent groups (control and experimental) to align with the nature and objectives of this study.

2.2 Research Population and Sample

The study sample consisted of adolescent individuals engaged in the sport of football players in the specialized center in Al-Batha District, affiliated with the Sports and School Activity Directorate, Thi Qar Education Directorate for the year 2022-2023. The total number of youth players in this center was 40, aged between 15 and 16 years. After ensuring homogeneity and equivalence, the researchers conducted their field experiment on a sample of 24 players, representing 60% of the population. The sample was randomly divided into two groups, control and experimental, each consisting of 12 players. The experimental group implemented their educational units using the play-based learning method, while the control group followed the method employed by the coach. The researchers conducted homogeneity and equivalence tests for the research sample using the variance ratio and the independent samples t-test, as illustrated in Tables 1 and 2.

Table 1: Exhibits The Measures of Central Tendency, Standard Deviations, and Coefficients of Skewness.

#	Statistical Processing Variables	Unit of Measurement	Mean	S D	Median	Skewness Coefficient	Significance
1	Length	meter	162	3.23	161.17	0.278	Homogeneous
2	Age	year	15.61	0.72	15.54	0.291	Homogeneous
3	Mass	kg	60.87	2.96	60.51	0.364	Homogeneous

All skewness coefficients were within the range of (±1), indicating homogeneity among the

sample individuals in the above variables.

Table 2: Indicates Similarity Between the Study Groups with Respect to Study Variables.

#	Statistical Processing Variables	Unit of Measurement	Control Group		Experimental Group		t-value	Significance Level	Statistical Significance
			Mean	S D	Mean	S D			
1	Agility	sec	8.283	0.953	8.335	0.924	0.135	0.894	Not Statistically Significant
2	Coordination	sec	8.944	0.933	8.795	0.973	0.383	0.705	Not Statistically Significant
3	Balance	degree	41.166	4.195	40.083	3.058	0.723	0.477	Not Statistically Significant
4	Handling Skill	degree	11.166	1.898	11.416	2.466	0.278	0.783	Not Statistically Significant
5	Scoring Skill	degree	9.750	3.306	10.166	2.249	0.361	0.722	Not Statistically Significant

At a significance level below 0.05 and with 22 degrees of freedom, it is statistically apparent from Table (4) that the computed t-values for all research variables exhibit significance levels exceeding 0.05. This signifies the lack of statistically notable disparities, implying a comparable nature between the research groups across all study variables.

2-3 Data Collection Methods

2-3-1 Data Collection Methods

Arabic and external resources, such as the Internet, constitute the diverse sources utilized. - personal interviews - scientific observation - tests and measurements.

2-3-2 Tools and Equipment Used

Medical floor scale - measuring tape (linen) quantity (1) - laptop (Dell brand) - electronic stopwatch - adhesive tape - whistle - footballs quantity (15) - markers - cones for delineating and marking test areas.

2-4 Determination of Some Motor Abilities and Basic Skills in Soccer and Identification of the Test for Each Ability and Skill under Study.

Some motor abilities and basic skills in soccer for youth were identified through surveying the opinions of a group of expert teachers and specialists to determine their importance and the needs of young players aged (15-16). The identified motor abilities and skills include agility, coordination, balance, handling, and scoring.

The research then requested conducting tests for each motor ability and skill under study, which were selected based on the literature of previous studies and presented to experienced specialists. Their approval was obtained with a 100% agreement, ensuring the face validity of the tests.

Despite the scientific validation and reliability of these tests in the Arab and Iraqi context, the researchers conducted a pilot study on a sample of eight youth players from the original community. This aimed to verify the stability of the tests by applying and reapplying them. Additionally, objectivity was ensured by having two judges record test scores, and correlation coefficients were calculated between them. The correlation coefficients displayed a

remarkable level of concurrence, validating the constancy and impartiality, as presented in Table (3).

Table (3): Exhibits the Unremitting Loyalty and Unwavering Impartiality Coefficients for the Assessments of Motor Capabilities and Aptitudes.

#	Tests	Reliability Coefficient	Significance Level	Objectivity Coefficient	Significance Level
1	Agility Test	0.86	0.000	0.93	0.000
2	Coordination Test	0.89	0.000	0.92	0.000
3	Balance Test	0.81	0.000	0.91	0.000
4	Handling Test	0.88	0.000	0.95	0.000
5	Scoring Test	0.85	0.000	0.92	0.000

Statistically Significant at a Significance Level < (0.05)

2-5 Specifications of the Tests

2-5-1 Agility Test

Test Name: Serpentine Running in the Shape of (8) (33:6).

Test Objective: Measure Agility.

Tools: Stopwatch, five markers, a rectangle drawn on the field measuring (4.80×3m), with a marker placed at each corner and the fifth marker placed at the intersection of the rectangle.

Performance Description: Upon hearing the start signal, the player runs in the shape of (8).

Recording: The time is calculated in seconds for one cycle.

2-5-2 Coordination Test

Test Name: Numbered Circles (329:9).

Test Objective: Measure coordination of the legs and eyes.

Tools: Stopwatch, draw eight circles on the ground, each with a diameter of (60) cm, and number the circles.

Performance Specifications: The participant stands inside circle number (1). Upon hearing the start signal, they jump with both feet to circle number (2), then to circle number (3), and so on, up to circle number (8), doing so at maximum speed.

Recording: The time taken by the participant to move across the eight circles is recorded.

2-5-3 Balance Test

Test Name: Dynamic Balance Bass (326:8).

Test Objective: Measure the ability to jump accurately and maintain balance during and after the movement.

Tools: Stopwatch, measuring tape, (11) markers fixed on the ground as shown in Figure (4), a recorder to note landing errors and balance errors, and a timer to audibly count five seconds for the participant.

Performance Specifications: The participant stands on their right foot at the starting point, then starts jumping to the first marker with their left foot, attempting to maintain their position on

the ball of their left foot for the longest possible time, up to a maximum of (5) seconds. After that, they jump to the second marker with their right foot, and so on until reaching the tenth marker, using the same method. It is noted that the landing foot changes with each jump, and the support is on the ball of the foot each time. The distance between the markers is 30 cm.

Recording:

- The participant receives (5) points for each correct landing on a marker.
- The participant receives one point for each second they maintain their balance above the marker, up to a maximum of (5) seconds. Thus, the total score for the test becomes (100) points.
- The participant does not receive the five points for the correct landing on the marker in case of failure to stop during the landing after jumping on the marker or if any part of their body touches the ground surface other than the ball of the foot, or if they fail to cover the marker with the ball of the foot. In the event of any of these landing errors, the participant is allowed to reestablish balance on the foot that is in turn above the marker for a maximum of (5) seconds.

2-5-4 Handling Test (213:4)

Test Name: We conducted a test to evaluate the precision of handling medium-sized objects with respect to three circular shapes marked on the ground over a distance of 20 meters.

Test Objective: Measure medium handling accuracy.

Required Tools: Designated area for conducting the test, (5) balls, measuring tape, cones.

Procedures: Three overlapping circles are drawn with diameters in succession (2m, 4m, 6m). They are respectively given scores (6, 4, 2) points, with the centers of the circles forming the point of distance between the starting line and the three circles, which are placed at a distance of (20) m.

Recording: The participant is provided with a series of (5) successive opportunities, whereby the cumulative score accumulated over the course of these five opportunities is computed. It should be noted that the maximum score attainable by a participant is 30 points.

General Instructions

- If the ball lands on the line of the circle, the following score is given according to the sequence of circles (5, 3, 1) point(s).
- An attempt is considered unsuccessful if the ball falls outside the circles.

2-5-5 Scoring Test

Test Name: Precision Scoring towards a Divided Goal (80:1).

Test Objective: Measure precision in scoring towards the goal.

Required Tools: (6) soccer balls, tape to mark the scoring area for the test, a soccer goal, soccer field.

Procedures: Place (6) soccer balls on the penalty area line, which is (18) yards away from the goal. The balls are spaced (1m) apart. The player stands behind ball number (1), and upon receiving the start signal, the player scores in the areas indicated in the test, based on their importance and difficulty, sequentially one after the other until the sixth ball. The shots are made using the front of the foot.

- The test starts from ball number (1) and ends at ball (6).
- An attempt is not considered successful if no goals are scored from the three goals on each side, in addition to the center goal.

Recording: The number of successful shots that enter or touch the sides of the four specified goals on each side and the center goal are counted. Points for each ball out of the six balls are calculated as follows:

- 4 points for scoring in area number (4).
- 3 points for scoring in area number (3).
- 2 points for scoring in area number (2).
- 1 point for scoring in area number (1).
- 0 points for a failed attempt.
- The participant is given one attempt, which includes six balls.
- The highest score a player can achieve is (24) points.

2-6 Field Research Procedures

2-6-1 Pre-Tests

The researchers conducted pre-tests on the main research sample on Sunday and Monday, June 18-19, 2023, at the Champion Ahmed Ghani Stadium in Al-Batha'a.

2-6-2 Main Experiment

- The main experiment started on Saturday, June 24, 2023, and ended on Thursday, July 19, 2023.
- The number of instructional units was (12) units, with (3) units per week for each group.
- The duration of each instructional unit was (90) minutes.
- The instructional units were applied to both research groups during the week:
- Control Group: Educational methodology using the coach's style.
- Experimental Group: Educational methodology using the play style.
- The experimental group implemented the educational methodology using the play style for (90) minutes, distributed across its sections. The preparation section took (15) minutes, consisting of a general warm-up (8) minutes and specific warm-up exercises with the ball (7) minutes, serving the purpose of the instructional unit.
- The main section lasted (65) minutes, with (15) minutes allocated to explaining how to perform the exercises prepared by the researcher and (50) minutes for applying those exercises using the play style. The exercises were somewhat similar to what happens during a match, with each instructional unit consisting of (5) exercises, each exercise lasting (9) minutes, and a one-minute break between each exercise.
- The concluding section lasted (10) minutes, where the participants were given a small game that served the required skill, as well as relaxation exercises to return the body to its normal state.

2-6-3 Post-Tests

The post-tests were conducted on Thursday and Friday, July 20-21, 2023. The researchers ensured that the conditions were similar to the pre-tests in terms of location, time, and the presence of the assisting team. The same steps used in the pre-tests were followed.

3-7 Statistical Methods

The researchers employed the statistical software (SPSS) in order to derive statistical findings in accordance with the aforementioned statistical principles.: Mean, S D, Skewness, The Pearson Correlation Coefficient, the paired-sample t-test, and the independent-sample t-test are statistical methods used for analysis.

4- Presentation, Analysis, and Discussion of Results

4-1 Presentation and Analysis of Results for the Experimental and Control Groups

Table (4): Shows the Mean Values, S Ds, And Calculated (T) Values for the Pre-Test and Post-Test Assessments for the Control and Experimental Groups.

Group	Processors Variables	Pre-test		Post-test		t-value	Significance Level	Statistical Significance
		Mean	S D	Mean	S D			
Control Group	Agility	8.283	0.953	7.449	0.565	2.368	0.027	statistically significant
	Coordination	8.944	0.933	7.949	0.658	2.664	0.012	statistically significant
	Balance	41.166	4.195	44.666	4.052	2.822	0.007	statistically significant
	Handling Skill	11.166	1.898	17.583	2.810	7.567	0.000	statistically significant
	Scoring Skill	9.750	3.306	14.583	3.528	6.959	0.000	statistically significant
Experimental Group	Agility	8.335	0.924	6.660	0.855	4.934	0.000	statistically significant
	Coordination	8.795	0.973	6.988	1.021	5.150	0.000	statistically significant
	Balance	40.083	3.058	54.083	3.203	13.594	0.000	statistically significant
	Handling Skill	11.416	2.466	22.416	2.678	11.171	0.000	statistically significant
	Scoring Skill	10.166	2.249	18.250	2.632	11.899	0.000	statistically significant

Statistically significant at a significance level < (0.05) and with degrees of freedom (11)

The table (4) illustrates the mean, S Ds, and the calculated t-values between the results of the pre-tests and post-tests in some motor abilities and football handling and scoring skills for the control and experimental groups. The results shown in the table indicate that the calculated significance level is less than the significance level (0.05), the results of the pre-tests and post-tests indicate statistically significant disparities, which favor the post-tests for both groups. The presentation of the experimental and control groups' post-test results, along with their subsequent analysis, will be discussed in section 4-2.

Table (5): Shows the Means, S Ds, And Calculated T-Values for the Post-Tests of the Control and Experimental Groups.

Processors Skills	Control Group		Experimental Group		t-value	Significance Level	Statistical Significance
	Mean	S D	Mean	S D			
Agility	7.449	0.565	6.660	0.855	2.663	0.013	Significance
Coordination	7.949	0.658	6.988	1.021	2.738	0.012	Significance
Balance	44.666	4.052	54.083	3.203	6.314	0.000	Significance

Dexterity	17.583	2.810	22.416	2.678	4.312	0.000	Significance
Scoring Skill	14.583	3.528	18.250	2.632	2.889	0.009	Significance

In the case of a significance level < (0.05) and with a degree of freedom (22), the result is considered statistically significant.

Table (5) illustrates the means, S Ds, and the calculated t-value for the post-tests in some motor abilities and skills of handling and scoring in football for both the groups under study, namely the control group and the experimental group The results presented in the table show that the calculated significance level is less than the predetermined significance level (0.05), indicating statistically significant differences in the post-tests between the two groups and in favor of the experimental group.

4-3 Discussion

Through the presented results in tables (4), which showed significant differences between the pre-test and post-test results in some motor abilities and football handling and scoring skills, favoring the post-test results for both control and experimental groups, the researchers attribute the reason for the differences in the control group to the adequacy and impact of the instructional units' vocabulary, including exercises that demonstrated effectiveness in terms of allocated time, organization, execution, and development of cognitive processes, motor abilities, and basic football skills under study. This was achieved through explanation, demonstration, practical exercises, repetitions, sequencing, and accompanying feedback provided by the coach to members of the control group. This aligns with what Khayoun (2002) mentioned that "an important principle of motor learning is the progression from acquisition to learning, leading to stability, which is the fundamental principle of motor learning" (37:11). Additionally, the continuous attendance and regularity in training helped in the development of capabilities and learning of some skills, characteristics of motor learning principles. The researchers attribute the development of the experimental group to the application of the play-based learning method. The continuity in performance and variations in playing positions within the learners' capabilities and capacities contributed to the development of the motor and skill capabilities under study. Providing a suitable educational environment for applying performance in a manner similar to real playing situations, guiding learners to enhance their performance directly, and understanding their positions, timings, and how to use them during play greatly aided their control of the ball and the proper execution of the required skill. The play-based learning method also stimulated and intrigued the learners, providing motivation to perform the required motor skills. One of the main objectives of educational units is to immerse learners in a situation similar to real play, whether through the play-based learning method or any other teaching method. At the same time, it works on increasing their comprehension and awareness during the performance of skills in a play situation, guiding them to develop, consolidate, and retain them for the longest possible period. This aligns with the notion that play-based learning is "a state of directing skill learning, aiming to teach the learner to perform play, which requires a combination of awareness, comprehension, and perception to know the plan and execute the skill" (6:13).

As shown in Table (5), the experimental group outperformed the control group in some motor abilities and football handling and scoring skills. The researchers ascribe the cause for the advantage of the experimental group to the efficacy of the learning approach centered on play and the incorporated exercises., which contributed to the development of these variables in young football players. The exercises included skill-based drills that closely resembled the

atmosphere of real play. They were systematically and regularly implemented by members of the experimental group with suitable repetitions, contributing to satisfying the players' desire through physical activity. These exercises were characterized by diversity, excitement, and stimulation for the young players. Firas Abdul Hamid (2015) confirms that "skill-based exercises resembling match atmospheres directly contribute to the development of mental, motor, and skill aspects, as well as contributing to the development of the player's coordination abilities, increasing neuromuscular coordination and motor synchronization between skills" (127:5). The researchers also believe that play-based learning method exercises are appealing to learners and players as they resemble play situations, increasing excitement, stimulation, and enjoyment in the learners' minds. Additionally, the simplicity of these exercises, coupled with factors like encouragement and excitement, enhances the learners' self-perception and self-confidence. This is in line with Walid Bani Hani, who stated, "Learning through play is an investment in play activities serves the purpose of acquiring knowledge and bridging the gap between learners and the principles of science, thereby expanding their cognitive horizons. This endeavor involves a deliberate effort on the part of learners to enhance their mental, physical, and emotional capacities, while simultaneously achieving enjoyment and amusement (47:10). The play-based learning method, implemented by the experimental group, entails skill-based exercises that closely resemble the conditions and progressions of a competitive setting. By simulating competitive conditions, these exercises familiarize players with the demands of competitive situations. Hassan El-Sayed Abu Abdou (2014) underscores the coach's responsibility in teaching players fundamental skills under the pressures of competition, through exercises that replicate real play scenarios (73:3). This notion corresponds with Biran Mackenzi's assertion that "the movements executed in the program should closely resemble the movements encountered during actual competitions" (68:12).

5 - Conclusions

1. The use of the play method appears to have a positive impact on developing some motor skills and fundamental football skills in young players.
2. The experimental group, which applied the play method, demonstrated superiority over the control group, which followed the traditional method, in some motor skills and football handling and scoring skills for young players.
3. The improved performance in the experimental group is attributed to the excitement, enjoyment, and competition inherent in the play method, enhancing the motivation of young players in the execution of physical activities and the facilitation of the enhancement of motor abilities and essential soccer proficiencies.

5-2 Recommendations

1. It is recommended to incorporate the play method into educational and training curricula to develop motor skills and fundamental football skills in young players, considering its alignment with the type of skill and its performance context.
2. Emphasis should be placed on developing motor skills, especially among young football players.
3. Consideration should be given to introducing modern learning methods in general, particularly in teaching fundamental football skills.
4. Further research and studies are advised, comparing the play method with other teaching methods in individual and team sports and activities.

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