

THE EFFECT OF USING THE RANDOM VARIABLE METHOD IN DEVELOPING SOME MOTOR & SKILL ABILITIES FOR JUNIOR FOOTBALL PLAYERS

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Abstract

The significance of this study comes as it attempts, through the interference of variable random method, adopting correct scientific method, gradation and move in learning from the easier to the harder, involving suspense and interest in exercises similar to playing, to increase student's acquisition of motor abilities and basic skills in a way better than traditional methods.

The researchers prepared a set of exercises due to this interference in both methods to treat the weakness in motor and skill abilities for the junior players, trainers who do not consider training presentation in football to be consistent with motor and skill abilities of players and being restricted to use traditional methods in educational and training units for junior football players. The study aims to identify the effect of developing some motor abilities and basic skills of junior football players. The researchers used the empirical method as it is proper to the nature of the study and sample (junior football players in Al Shoala club). The researchers concluded that the overlap between both methods has a positive effect on acquisition of some motor abilities and basic skills of junior football players. In addition, the used educational means in training have a positive effect as well.

Keywords: random variable method, motor abilities, skill abilities, junior football players.

1. INTRODUCTION

Modern football is a good playing method that contains elements of suspense and interest by audience. This game has great sponsorship and interest and it is practiced by the young and the old as it contains motor skills, events and situations that cause interest and suspense of everybody towards practicing and watching football. This led to practice this game by a great number of players. Therefore, a football player needs a high and good motor performance that greatly requires the use of body parts with changing place and maintaining performance itself with high accuracy and good performance.

Basic skills are one of the components of football as well as fitness, motor attributes, psychological, educational and mental aspects which enhance performance levels. Thus, skill preparation should be considered through testing various educational and training methods which aim to acquire and develop motor characteristics and basic skills to enhance the level of the skill performance to the better.

The significance of this study comes as it attempts, through the interference of variable random method, adopting correct scientific method, gradation and move in learning from the easier to the harder, involving suspense and interest in exercises similar to playing, to increase student's acquisition of motor abilities and basic skills in a way better than traditional methods.

Problem of the Study

The researchers used the method of learning skills by using the random variable method which gives enjoyment in learning and understanding how to play the game better. At the same time, it develops basic skills and motor abilities, so the researchers prepared a set of exercises due to this interference in both methods to treat the weakness in motor and skill abilities for the junior players, trainers who do not consider training presentation in football to be consistent with motor and skill abilities of players and being restricted to use traditional methods in educational and training units for junior football players. The study aims to identify the effect of developing some motor abilities and basic skills of junior football players.

2. METHODOLOGY

The researchers used the empirical method as it is proper to the nature of the study

The Sample of the Study

The sample was chosen purposively. It is a group of junior football players in Al Shoala club (20 players among 51 players using pair numbers). 11 players were eliminated as the researchers performed the exploratory trial on them. The percentage of the sample was (39.22%) of the population of origin.

Determining Motor and Skill Football Abilities

The most important motor characteristics in football were determined through a questionnaire. After analyzing it and getting the percentage, motor abilities were proposed according to relative importance as in table (1)

Table (1) Motor Abilities rank due to experts

Motor Skills	Relative Importance	Final Rank
1- Agility	93.3%	1

Determining Motor Ability Tests

After determining the most important motor abilities used in the study, the most important tests of these abilities were determined and legalized as in table (2)

Table (2) tests of motor abilities used in the study

Serial	Motor Skill	Tests	Percentage
01	Agility	Zigzag Running between barriers	93.3%

Determining Basic Football Skills

Basic skills were determined through random variable method and these exercises were more effective than others as in table (3)

Table (3) basic skills used in the study

Serial	Motor Skill	Relative Importance	Final Rank
1	Ball dribbling	93.3%	1

Determining Bask Skill Tests in Football

After determining basic skills in football, tests for these skills were proposed by the researcher (3 tests) and chose the most suitable of them as in table (4)

Table (4) the used skill tests in the study

Serial	Motor Skill	Tests	Percentage
01	Ball dribbling	Dribbling between 5 posts come & go	93.3%

The Used Tests in the Study

Test of football motor abilities.

Agility: zigzag between posts (Qais Nagy, Bastawisy Ahmed, 1984: 323)

Tests of basic football skills

Dribbling by changing direction (Qais Nagy, Bastawisy Ahmed, 1984: 321)

First exploratory trial

The two researchers conducted this trial for tests set for motor characteristics and basic skills on a sample of 11 players from population of the study on 08/11/2014

Scientific Principles of the Tests Used in the Study

The two researchers sought to the scientific principles in tests for the purpose of determining validity of these chosen tests or how valid, reliably and objective they are.

Test Validity

Test validity means “to measure what is set to be measured by the test in a way that valid test measures its target function and nothing instead or in addition” (Nori El Shok, Rafea Al Kebissy 1999: 89 – 99). The researchers obtained test validity coefficient through the use of self validity coefficient.

Test Reliability

Test reliability means that “if a test is conducted on a sample and then repeated on the same sample and under the same conditions, results appeared at the first time are the same results in the second time” (Mostafa Husein Bahy 1999: 5). The researcher used selection and repetition to get reliability coefficient as this is one of the most suitable ways adopted in tests.

Test (5) reliability coefficient, self validity coefficient and freedom degree for tests used in the study

Serial	Tests	Validity Coefficient	Self-Validity Coefficient
1	Zigzag Running test to measure agility	87%	93%
4	Dribbling by changing direction test	84%	91%

Test Objectivity

Since the tests used by the researcher are far from self-design and prejudice, they became clear and easily understood by members of the sample depending on clear measuring tools. This is because results of tests are recorder using seconds, degree/specific time, degree / counting ball position) as time units which made the researchers prepare the study tests with high objectivity.

Pre-Tests

Pre-tests of the sample were conducted on Monday 09/11/2014 on a football pitch. Both researchers used the same conditions as possible at post-tests.

The Main Trial

The method included 8 educational units for 8 weeks (one unit a week) with a time of 90 minutes for the single educational unit. The empirical group works with teachers of football in the faculty as in table (6)

Table (6) Divisions of the single educational unit, times and percentages through educational course for the empirical group

Serial	Divisions of the educational unit	Time in the educational unit (min)	Time in the educational course (min)	Percentage
1	Preparation division	15	120	%16,66
	- Attendance	3	24	%3,33
	- Warm-up	12	96	%32,13
	1- Public	4	32	%4,44
	2- Private	8	64	%8,88
2	Main division	70	560	%77,77
	- Educational side	20	160	%22,22
	- Applied side	40	320	%44,44
	- Educational playing	10	80	%11,11

3	Final division	5	40	%5,55
	- Small game	4	32	%4,44
	- Dismissal	1	8	%1,11
Total		90	720	100%

Post-Tests

Post tests on the sample were conducted on Monday 07/01/2015. The researchers adopted the same conditions and procedures of the pre-tests.

Analysis of Motor Abilities Tests in Pre and Post Tests for the Sample of the Study

Table (7) values of arithmetic means, standard deviations for pre and post tests, variances of means and development percentage for motor characteristics' tests

Tests	Measuring unit	Pre-test		Post-test		Means variance	Development %
		Mean -	S.D	Mean -	S.D		
Agility	Time (sec)	7.66	3.8	6.60	4.2	1.06	13.83%

Table (7) shows values of arithmetic means, standard deviations, means variance and development percentage in pre and post tests for the motor characteristics under study. The arithmetic mean in the pre-test for agility (7.66), standard deviation (3.8), while the arithmetic mean in post-test for agility (6.60) and standard deviation (4.2). The difference in arithmetic means for the pre and post tests for agility is (1.06) and development percentage was (13.83%).

To determine the significance of differences between pre and post tests for the studied motor abilities, the researchers used suitable statistical rules for data processing as in table (8)

Table (8) values of arithmetic means, total squares of differences' deviations from their average, the T counted and tabulated values and significance of differences between pre and post tests for motor abilities' tests

Tests	Measuring unit	Mean – S.D	Total D ²	T counted	T Tabulated	Significance of differences
Agility	Time (sec)	0.6	3.1	6.6	2.09	Significant

The (T) tabulated value is 2.09 at significance level 0.05 and freedom degree 19.

Table (8) shows values of arithmetic means, total squares of differences' deviations from their average, the T counted and tabulated values and significance of differences between pre and post tests for motor abilities' tests for the sake of post test in agility.

3. DISCUSSION OF RESULTS OF MOTOR ABILITIES

Analysis of results in previous tables showed that there are statistically significant differences between pre and post test of the sample in tests of motor characteristics for the sake of post-test. This shows the effect of tests that used educational method of junior players in developing some important motor abilities needed by football players including agility as it includes all or most other characteristics. This was asserted by (Kasem Lazam & Furat Jaber) as “most actions performed by the football players require enough strength accompanied with suitable speed and good flexibility. Thus, performance will be good and consistent. Consistency is the most accurate concept to the player’s agility”.

In order for a football player in integrating multiple basic skills in one frame and change in his speed and direction (Hanafy Mahmoud 1994: 60), the player needs to use his body completely to master the move with ability to change direction and speed with an easy and flexible way. A football player needs agility to succeed in integrating a number of basic skills in one way, changing from a skill to another or changing speed and direction.

The researchers found that interference contributed to increase players’ ability on the correct skill performance as a result of motor consistency development. This agrees with what was referred to by Ali Salloum 2004: 146 as “the most recurrent error for beginners is the inability to be consistent at performing moves by involving unneeded muscles when performing moves which caused disorders in movement to be produced in a confused form”.

Analysis of results of basic skills' tests in pre and post tests for the sample of the study

For the purpose of determining differences between means in pre and post tests from the basic skills and development percentage in these skills, the researchers used the statistical rules for data processing as shown in table (9)

Table (9) values of means, standard deviations for pre and post tests and means differences

Tests	Measuring unit	Pre-test		Post-test		Means variance	Development %
		Mean -	S.D	Mean -	S.D		
Dribbling	Time (sec)	17.77	1.35	16.40	1.73	1.37	13.83%

Table (9) shows values of means, standard deviations, means differences and development percentage in pre and post tests for the main skills under study as the mean in pre-test for dribbling skill is 16.70 and standard deviation is 1.35, while mean's value for dribbling in post tests was 15.30 and the S.D was 1.70.

As for differences of means between pre and post tests, it was for the sake of dribbling (1.37). For the purpose of determining significance of differences between pre and post tests in basic skills under study, the researchers used suitable rule for data processing as shown in table (10).

Table (10) values of arithmetic means of differences, total squares of differences' deviations away from average, the T counted and tabulated values, significance of differences between pre and post tests in tests of basic skills

Tests	Measuring unit	Mean – S.D	Total D ²	T counted	T Tabulated	Significance of differences
Dribbling	Time (sec)	2.9	6.50	8.05	2.09	Significant

The (T) tabulated value is 2.09 at significance level 0.05 and freedom degree 19.

Table (10) shows that values of arithmetic means of differences, total squares of differences, T counted and tabulated values and significance of differences between pre and post tests in tests of basic skills. The value of mean of differences in dribbling is 2.9, while the T counted value was 8.05 which is more than the T tabulated value (2.09) at significance level (0.05) and freedom degree (19) which shows that there are significant differences between pre and post tests in dribbling.

4. DISCUSSING RESULTS OF BASIC SKILL TESTS:

Discussion and analysis of results in the previous tables showed that there are statistically significant differences between pre and post tests for the sample in all chosen basic skills for the sake of post-test. This shown the extent of the effect of using interference exercises integrate in the educational course of junior players in developing some important basic skills in football including dribbling skill as exercises contain correct organization by grading from the easier to the harder and scientific planning. Taha Ismail et al 1989: 17 say that “football training is characterized by planning, organization and continuity based on scientific basics to ensure positive effect on the level of the player and continuity in the front of different aspects of football as gradation in load levels and correct repetition timing”. The researchers found that reasons for developing dribbling skill are due to using various means during performing exercises including the use of posts. Hergold & Wibler 1998: 24 refer that training using posts gives players sense of facing the opponent, so we can estimate distance available from the sides of the player quickly.

5. CONCLUSIONS:

In the light of results, the researchers concluded the following:

- 1- Interference between both methods has a positive effect on acquiring some motor abilities and basic skills for junior football players.
- 2- Educational means used in training have positive effect.
- 3- Repetition of some exercises led to develop some motor abilities and basic skills to be consistent and developed.

6. RECOMMENDATIONS

In the light of conclusions, the researchers recommend the following:

- 1- Application of interference of both methods used in this study within preparation periods for junior players.
- 2- Applications of methods with significance of training in other games and age categories in football.

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