

The Relation between Motor Expectation and Early Motor Response for Handball Defenders

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ABSTRACT

This study aims to define the relation between motor expectation and motor response speed. The researcher used the descriptive method as it is proper to the nature of the study. The sample of the study included 15 defenders from Selikh and the Army Clubs. In the first system (imaging), the researchers photographed the motor path of defenders, ball path, and the opponent. In the second system (analysis), they photographed movements of defenders and team partners from tactical and technical point of views with consideration of the scoring area. A form of remarks and motor expectation evaluation was adopted consisting of five parts: Ball stealing, ball dispersion, moves of attacking sides, moves of attacking forward, and moves of attacking backward. Each part takes 10 marks and the full mark is 50. Regarding the motor response time, the four-way Nelson test was adopted with a distance of 6.4 m. The researchers found that all relations were positive and in inverse direction which means that the more motor response speed time is, the more motor expectation will be, while there were no positive results in the direction of attacking backward.

Keywords: Relation, motor, expectation, handball, speed

INTRODUCTION

Motor expectation in athletics is one of the mental abilities that depend on the experience of players. The more the experience is the more expectation will be. Mahmoud Abdelfattah refers that motor expectation is a prior mental preparation as it is a complex motor mental issue. Moreover, it is also one of the important aspects of motor decisions that should be made within the framework of planning thinking during playing. Players have a key role as they should be proactive in reading thoughts and tactical intentions of their opponents in the other team (Abdulfattah, 1995). Moreover, motor expectation plays a role in full

disclosure of the pathway of opponent's moves and responding them by way or another. A player's previous experience plays a great role in expectation. It is clear that it includes dribbling and maneuvering as means used by the striker player against motor expectations of the opponent. Whatever the skill of the player is, he will still unable to control his movements to respond the opponent unless he manages to determine the skill reached by the opponent and expectations from this opponent in different positions of the player which is found in handball (Khaldoun, 2010).

Handball is one of the organized games characterized with excitement and how the player understands his duties inside the field. The more a player's previous experience is the bigger his role in motor expectation will be. Further, handball includes a lot of tasks and skills that made the game at the center of specialists' attention. Among these duties, there are defensive duties which mean moving the team from attacking to defense at the moment of losing the ball. The defensive process is done by flashing and quick counter retreat

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backward from attack zones to defense zones trying to obstruct the opponent strikers. All individual and collective attempts are made by the single player or the team when the ball is in possession of the opponent team. Proper and successful defense is one of the basic pillars complementary to the team's success and it is not less important than the attack, if not more important. The team that improves the defense and steals the ball can attack steadily and quickly it will make the opponent misses the opportunity to return quickly and be regrouped. Moreover, the defense is no longer limited to a defense player by employing his defensive skills to prevent himself from scoring an own goal but also to employ his defensive skills against the attacking player before receiving the ball or at the moment of ball possession (El Khayat and Al Hialy, 2001).

A defender player does not always expect quick ball throwing from the opponent's hand, especially when shooting is from the goal area (6 m). The ability of motor response based on the noticed direction to ball throwing is small or non-present, while the response is better in throws needed from far distances as expectation duty is complicated. This is if the result of motor behavior of these moves additional to moves of the player himself. This is found in related games such as the movement of players of the same team or continuous movement of players (Allawi, 1987). The right timing can be achieved only when the technique is consistent with motor requirements of the skill and also related to the body of skill performer, so easy performance results from motor efficiency.

Expecting the opponent's movements is one of the most important motor phenomenon in handball. The motor expectation in this game refers to full and prior disclosure of goal of the opponent's movements, how to overcome them and defend them one way or another. Hence, the significance of the study is to identify motor expectation among defenders of handball which has a role in solving some of the defense problems.

Objective of the Study

The study aims to determine the relation between motor expectation and early motor response of handball players.

Hypotheses of the Study

There are statistically significant differences between the relation between motor expectation and early motor response of handball players.

PROCEDURES

Methodology

There are a lot of phenomena that cannot be studied unless through an appropriate methodology that is consistent with. Therefore, the researchers used the descriptive method using correlations buying the best and easiest method to achieve the objective of the study.

Sample of the Study

The sample includes 7 defender players from Al Karkh Club and 8 defender players from the Army Club (total sample is 15 players). The sample was selected purposively as they represent the most experienced players in the game for long years (between 5 and 6 years) with teams as their ages ranged between 19 and 21 years old.

Tests of the Study

- Nelson four-way test in a distance of (6.4 m) to measure motor response speed (Ibrahim and Breka, 1995).
- Regarding motor expectation, both researchers used imaging and adopted the form of observation and motor expectation performance evaluation through five divisions (ball stealing, ball dispersion, moves of attacking sides, moves of attacking forward, and moves of attacking backward) and give 10 marks for each division out of full mark 50.

Exploratory Trial

The researchers conducted an exploratory trial on 01/11/2015 on a group of players of the original population to test devices, imaging machine used in this research and how valid they are, clarify work of the assistant work team, set the time duration through installing the imaging device of the field trial of the study, define shot angle and its place to completely cover the field.

Main Trial

The main trial was conducted on Monday, 17.12.2015, where the researchers in the first system (imaging system) imaged the motor path of the defender players, the path of the ball and the opponent. In the second system (analysis system), they imaged moves of defender players and colleagues from tactical (tactical)

and technical (technique) standpoints taking into account the scoring area, as the notes form has been adopted and motor expectation was evaluated of five divisions (ball stealing, ball dispersion, moves of attacking sides, moves of attacking forward, and moves of attacking backward). For each section: 10 degrees and the total score is 50. The four-way Nelson test was adopted to test motor response time test with a distance of 6.4 m.

PRESENTATION AND DISCUSSION OF FINDINGS

Showing Statistical Parameters of the Researched Variables

The researchers present a description of statistical parameters' findings for the researched variables to the sample of the study as shown in Table 1.

Findings of Variables Matrix Analysis

The researchers present findings of correlation matrix of variables of the sample as shown in Table 2.

Discussion of Findings

Through the findings reached by the researcher, the findings showed the significance of all observations that were not designated in advance recorded by the assistant team except the movements of the attacking backward. The researchers attribute the cause of these significant differences through the reverse direction, which means that the quicker the motor response expectation is, the greater the expectation will be and vice versa. A defender cannot always expect speed of throwing the ball from the hands of an opponent, especially when the correction of the goal area (6 m) where the possibility of motor response on the basis of the observed direction of throwing the ball is little or non-present, while in the

throws required from a distance, response is better when it is the duty of expectation besides moves of the player himself. This is what we find in organized games (Allawi, 1987), and the correct time can be achieved only when the (technique) is consistent with motor skill requirements and also linked to the body of the person performing the skill. Therefore, easy performance results from the motor efficiency as well as the experience of defender players which had a clear effect on increasing response speed and correct motor expectation.

If we managed to explain the expectation of the sending tool, how ball speed toward defense zone can be received by defenders and expect ball arrival, how players expect receiving and delivering the ball with this speed, we will find great ability of nervous system of tool expectation and we will know how it is difficult for defender players in chest moves of the ball. This is what is learned through age categories through continuous training. Motor expectation of the tool can occur and therefore we find expectation a mental and motor issue, so it is very important in ball keeping after scoring by opponent. The motor expectation in such games leads to complete disclosure of the path of opponent's moves and respond them by way or another. A player's previous experience plays a great role in expectation. It is clear that it includes dribbling and maneuvering as means used by the striker player against motor expectations of the opponent in various states of the player. Whatever the skill of the player is, he will still unable to control his movements to respond the opponent unless he manages to determine the skill reached by the opponent and expectations from this opponent in different positions of the player. He will be able to know the skill reached by the opponent and expectations from various positions of the player. Determining moor path of opponents will be tiring as it changes in directions of movement and achieves his skills due to the main duty and the sum of these

Table 1: Statistical parameters of the researched variables

| Variables | Test | Measure unit | N | Arithmetic mean | Standard deviation |
|-------------------------------|-----------------------------|--------------|--------|-----------------|--------------------|
| Motor expectation | Ball steal | Degree | 15 | 5.93 | 1.438 |
| | Ball dispersion | Degree | 15 | 7 | 1.069 |
| | Moves of attacking sides | Degree | 15 | 5.47 | 1.407 |
| | Moves of attacking forward | Degree | 15 | 5.93 | 1.751 |
| | Moves of attacking backward | Degree | 15 | 4.27 | 1.71 |
| | Total mark | Degree | 15 | 28.6 | 4.256 |
| Motor response speed duration | | Second | Degree | 2.289 | 0.253 |

Table 2: Findings of variables matrix analysis

| Motor expectation | Motor expectation | | | |
|-----------------------------|-------------------|--------|---------------|--------------------|
| | Pearson | Degree | Significance | Relation direction |
| Ball steal | -0.799** | 0.000 | Significant | Inverse |
| Ball dispersion | -0.826** | 0.000 | Significant | Inverse |
| Moves of attacking sides | -0.681** | 0.005 | Significant | Inverse |
| Moves of attacking forward | -0.576* | 0.024 | Significant | Inverse |
| Moves of attacking backward | -0.098 | 0.728 | Insignificant | Inverse |
| Total mark | -0.979** | 0.000 | Significant | Inverse |

Freedom degree (N-2)=13, *Significance level (0.05), **Significant correlation if significant ≤ 0.05

moves added to moves of player himself which is found in handball (Khalidoun, 2010).

The study did not find relations in motor expectation with backward attack moves. The researchers attribute this to the case. When attackers move the ball backward, it does not form an impact or danger on

defenders which decreases their expectation and consideration as the ball is far from, their goal.

CONCLUSIONS

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

- Results of all expectations of players showed positive and inverse effect on motor response speed. This means that the more motor response speed time is, the more motor expectation will be.
- There are no significant findings in expecting backward attack.

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