

Model indicators of technical and tactical actions for highly qualified footballers with different roles in the Premier League of Ukraine

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Abstract:

In this paper, quantitative and qualitative individual technical and tactical characteristics of actions of highly- skilled football players are considered. *Objective:* The study was conducted among professional football players of the Premier League teams of Ukraine for the season 2016-2017. 53 professional football players of the Premier League teams participated in it. Results: The model characteristics of technical and tactical actions during the game of high-skilled players of various game roles are determined. The wing defenders are predominantly short and middle passing forward (28,3% of all gaming activities), ball receiving (23,1%), and short and passes backwards and forward (19,2%), other TTA are 29,4%. Central defenders mostly perform short and middle passing forward (29,3%), ball receiving (22,3%) and short and middle passing backward (12,8%), other TTA (33,6%). The central midfielders for the game mainly perform short and middle passing forward (25,2%) and backward and cross (22,6%), using the 24,1% of ball receiving and other TTA – 28,1%. Wing midfielders also prefer short and middle passing forward (25,7%) and backward and cross (20,4%), while 25,9 % of ball receiving is performed from the total number of technical and tactical actions (other TTA - 28,0%). Attackers are more likely to perform ball receiving (34,4 %), and short and middle passing backwards and cross (19,5 %) and forward (16,6 %), while other TTA make up 29,5%. Other indicators of technical and tactical actions in the players of all game roles do not reach 10%. *Conclusions.* The model indicators of technical and tactical actions during the game of elite players of different game roles are determined. For central and wing defenders, predominantly short and middle passing forward (29,3%; 28,4% respectively), ball receiving (22,3%; 23,2%) and short and middle passing backward and cross (12,8%; 19,3%). The central and wing midfielders mainly use short and middle passing forward (25,2%, 25,7% respectively), ball receiving (24,1%; 25,9%), short and middle passing backward and cross (22,6%; 20,4%). Attackers are more likely to perform ball receiving (34,4%), short and middle passing forward (16,6%).

Key words: competitive activity, technical and tactical actions (TTA), quantitative and qualitative indicators..

Introduction

Relevance of the research

Modern football is characterized by high intensity of action requiring the athlete to use maximum muscular effort and the ability to show them in a rapidly changing situation [3,6,8]. Very often modern football is called intensive and even super-intensive. Indeed, the huge amount of motor activity, the speed of movement of players in the game, the work with the ball in a time and space shortage - all these features of modern football impose special requirements for the individual skill of players. Skill improvement of football players has no limit, and the most difficult of many tasks they solve - the growth of technical and tactical skills [2,7,13].

Analysis of the latest publications

In sports games, experts recommend the use of performance and effectiveness indicators as the main criteria for assessing competitive activity and athletic skill of players [9,12].

Problems of control and estimation of competitive activities of footballers were the focus of many experts. However, each particular case was confined to solving only some of the individual tasks that the investigator was facing [5,6,9,12]. Many experts consider competitive activity, reducing it to the rank of integral indicator, and sporting result – as one of the leading criteria of the effectiveness of the training process [4,6,9]. Therefore, when managing the training process, it is suggested to concentrate efforts on the analysis of competitive activities of teams and individual players, since only in the context of crucial competitions the positive and negative aspects of athletes' preparedness are fully revealed. And only by deeply studying competitive activities you can develop an adequate training system [4, 7,11,12].

Thus, the urgency of the chosen topic of study is determined by the great importance of information about the technical and tactical actions (TTA), both individual players and teams in general, to improve the quality of training work.

The purpose of the study was: to determine the quantitative and qualitative individual technical and tactical characteristics of the actions of elite players.

Material & methods - Participants The study was conducted among professional teams of Ukraine. 53 adult football players took part in 23 games.

Procedure The game activity was recorded in 15-minute segments, which allowed to see the dynamics of the entire match, to determine the strengths and weaknesses of the players of different game roles: attackers, defenders, and midfielders. In the forms of technical protocols the indicators of action in the attack were recorded: reception, dribbling, passing, ball shots with the definition of the coefficient of failures. And also indicators of the game in defense: tackling, interception, game in single combats as well as determining the coefficient of failures. Technical and tactical actions (TTA) registration was conducted indirectly (hidden - when, one who was observed by someone - did not know that he was being monitored).

By the method of Yu.A. Morozov [3] we registered the following technical and tactical actions: - ball reception; ball passes (short, middle and long); - interception; - single duels (at the top and downward); - cheating - tackling, - ball dribbling, shots into the goals (kicks and headers).

The coefficient of the lack of technical and tactical actions of players of different game roles was determined by the formula:

$$C_{ms} = \frac{\text{negative TTA}}{\text{positive TTA} + \text{negative TTA}} \times 100, \text{ where}$$

Negative TTA - technical and tactical actions performed under the sign "-";

Positive technical and tactical actions (TTA) + negative technical and tactical actions (TTA) - the sum of technical and tactical actions performed under the sign "+" and "-".

Under the sign "+" there were positive actions, when the ball remained on the team.

Under the sign "-" negative actions were recorded, the result of which was the inaccurate performance of technical and tactical techniques.

Data of technical and tactical actions were spoken on a dictaphone, and then decoded with a verbose record. Based on the results of the processing of technical protocols, a comparative analysis of the activities of footballers taking into account the role of the game was used. The average performance indicators for the performance of technical and tactical actions were determined based on the results of 23 games for each line.

Statistical data processing

Methods of mathematical statistics are used in accordance with the known recommendations with the use of computer programs "EXCEL" and "SPSS" [1,10].

Results of the research

In drawing up a training program for young footballers of different roles, it is important to determine the most significant technical and tactical actions for each of them during the game (Table 1). In connection with this we carried out an analysis of technical and tactical actions of elite players of the Premier League of Ukraine in 2016-2017. Thus, the central defenders are mostly characterized by the quality of the number of ball receiving (22,3%), which is a significant contribution to the actions of central defenders since the rebound of the ball to the opponent's player gives one the opportunity to make effective action. Short passing backwards and across the field make up 12,8%, for the same passes forward there are 29.3%. A significant amount of them is related to the ability to start and continue the attacking actions of a team as soon as possible, while their inaccurate performance leads to a constant tackling of the ball by an enemy team. Accordingly, for defensive actions, central defenders are characterized by tackling (7.5%) and interception of the ball (8,6%) and duels at the top - 7,1%. Other indicators of technical and tactical actions have a much lower percentage of the use. Wing defenders also use mainly the actions associated with the reception of the ball - 23,2%, at the same time they, as central defenders, must start the attacking team actions, respectively, using short and middle passes forward - 28,4%, the use of which allows start and continue the team's attack. One of the important technical and tactical actions for the wing defenders are the use of interceptions (6,8%), ball tackling (5,9%) and duels at the top (3.3%). Short and middle passes backward and forward - 19,3% are used to hold the ball for further development of attack. The important actions of the wing defenders are the rapid ball flank dribbling (4,6%) and long ball passing backward and forward (4%). The typical actions of the central midfield players include: a quantitative and qualitative reception of the ball - 24,5%, short and average ball passing forward - 25,2% and backward - 22,6%, ball dribbling - 6, 3%, cheating (5.3% and ball tackling - 4,4%. Less important actions of central midfielders are duels at the top - 3,5%, long passes backward and forward - 3,4%, interception of the ball - 3,3%. Wing midfielders mostly play the game with the help of the ball receiving - 25,9%, short and middle passes forward - 25,7% and backward - 20,4%, ball tackling - 6,7%. At the same time, the actions related to the rounding of the rival - 4,0%, the implementation of long passes backward and forth - 3,5%, interception of the ball - 3,4%, duels at the top - 3,0% are important. Attackers as well as central midfielders,

mainly receive the ball (34,4%), the qualitative execution of which makes it possible to perform further attacks and use short and middle passes forward (16,6%) and backward and cross (19, 5%), take an active part in the final phase of the attack using a goal kick (3,4%). Also one of the priority technical and tactical actions for the striker is the round, which allows for further attack (8,5%). The attacker has a role in tackling of the ball – 4,7% after the attack is interrupted, as well as taking part in duels at the top – 4,2% in the attacking and defensive actions of the team.

Table 1 shows the average data of quantitative and qualitative indicators of technical and tactical actions of the players of the Premier League of Ukraine of various game roles. It was revealed that the number of performed technical and tactical actions of players of different roles is not the same.

Thus, the highest number of technical and tactical actions on average is played by the central midfielders (100,93 ± 4,37), and the least by attackers (67,67 ± 4,26). Wing defenders perform a greater number of short and middle passes forward – 28,3, long passes forward – 3,23, long passes backwards – 0,8. Central defenders are more involved in single duels at the top – 6,1, interceptions – 7,4 and tackling – 6,5. The central midfielders, as compared to the players of the other roles, perform more ball receptions – 25,0, short and middle passes backward and cross – 22,8. Wing midfielders use more tackling – 5,8. In turn, the players of the line of attack considerably more use headers into the goal – 0,47 and shots 1,85.

It is also established that the coefficient of passing mistakes is different with highly-skilled players of different game roles. So, the biggest deflection factor for the central defenders when performing long passes forward is 62,3%. Wing defenders make more mistakes while performing long passes forward – 75,6%, shots into goal – 61,3% and headers – 58,3%. The central midfielders make a lot of mistakes in the course of long passes forward 53,1%, tackling – 47,2%, shots 52,5% and headers – 43,2%. Wing midfielders ineffectively perform dribbling – 41,0%, kicking into the goal – 62,5%. Attackers are more likely to make mistake than players of the other roles while receiving the ball – 17,3%, which is due to tight marking by the defenders during the performance of short and medium passes of the ball forward – 28,7%, dribbling – 56,3% and goal shots – 64,2%. Important are the physical qualities that are necessary for the effective performance of gaming activities by players of various gaming roles.

Discussion

The results of our research will continue the series of scientific transactions to control the competitive activities of high-skilled footballers [6,7]. The obtained data confirm supplement and extend the knowledge on controlling the competitive activity of players of high qualification [2]. At present, it is impossible to imagine effective management of the training and competition process, as well as the selection and orientation of the athlete without the use of different models [4,6].

Table 1. Qualitative and quantitative indicators of technical and tactical actions of footballers of high qualification of different roles of the Premier League of Ukraine 2016-2017 (n-games)

TTA		Central defender (n=12)	Wing defender (n=11)	Central midfielder (n=15)	Wing midfielder (n=15)	Attackers (n=10)
Receiving the ball	Quantity	19,17±1,60	23,12±2,28	25,04±1,75	22,72±1,53	23,30±1,80
	C.ms.%	3,71±0,58	4,54±0,53	6,22±0,64	9,32±1,58	17,37±1,37
Dribbling the ball	Quantity	3,3±0,65	4,6±0,78	6,40±1,28	5,00±0,52	4,20±1,09
	C.ms.%	10,02±2,52	17,13±3,64	19,30±8,89	17,07±5,63	13,69±5,69
Short and middle passes forward	Quantity	25,20±1,64	28,33±2,38	25,54±2,34	22,51±2,46	11,27±1,76
	C.ms.%	15,07±2,28	18,22±2,77	21,37±2,17	24,23±2,27	28,76±2,62
Short, middle passing backward and forward	Quantity	11,08±1,35	19,21±1,22	22,82±1,57	17,91±1,16	13,21±2,02
	C.ms.%	19,11±2,54	8,37±1,31	11,80±1,37	12,15±2,24	12,32±2,33
Long forward passes	Quantity	3,77±0,65	3,23±1,22	3,06±0,43	2,66±0,36	0,12±0,21
	C.ms.%	62,37±5,46	75,60±4,25	53,16±7,35	54,33±6,57	43,18±11,12
Long passes backward and forward	Quantity	0,18±0,11	0,77±0,18	0,15±0,08	0,13±0,00	0,00±0,00
	C.ms.%	5,07±1,08	10,12±8,10	17,08±4,07	16,05±4,07	-
Single duels at the top	Quantity	6,10±0,73	3,02±0,41	3,56±0,36	2,66±0,43	2,89±0,57
	C.ms.%	8,61±2,44	11,02±4,12	19,43±7,23	7,98±3,42	15,57±8,16
Dribbling	Quantity	2,32±1,12	3,32±0,54	5,33±0,44	3,55±0,53	5,79±0,65
	C.ms.%	27,31±4,74	37,12±5,89	31,16±8,94	41,00±4,89	56,32±4,23
Interception	Quantity	7,41±0,73	6,76±0,57	3,13±0,54	3,02±0,37	1,36±0,45
	C.ms.%	21,14±4,24	25,21±4,16	34,23±4,65	17,78±3,56	21,13±3,81
Tackling	Quantity	6,53±0,61	5,87±0,38	4,45±0,36	5,87±0,82	3,21±0,51
	C.ms.%	47,21±4,32	46,32±5,27	47,25±5,31	59,56±5,33	69,23±5,76
Attacking the goal with shots	Quantity	0,23±0,17	1,21±0,19	1,36±0,23	1,17±0,27	1,85±0,45
	C.ms.%	26,22±11,20	61,32±10,32	52,54±11,23	62,59±11,26	64,23±11,15
Headers on goal	Quantity	0,15±0,05	0,13±0,06	0,12±0,09	0,29±0,12	0,47±0,23
	C.ms.%	45,32±11,14	58,32±9,25	43,24±12,37	25,15±9,35	35,15±13,67
Total per game	Quantity	86,83±3,85	99,57±4,77	100,93±4,37	87,49±3,09	67,67±4,26
	C.ms.%	24,57±1,89	31,11±1,68	29,73±2,79	28,96±2,17	34,26±2,16

Kostyukevich V.M. in his work [4] notes that model indicators of competitive activity most fully characterize the level of preparedness and skill of players. It follows from the logical scheme of their preparation

- increase of physical and functional readiness, improvement of technical and tactical skills, adaptation to training and competitive loads and finally optimal indicators of competitive actions in the game. The analysis of technical and tactical indicators of competitive activities in football is considered in two aspects - team-wide [4, 13] and individual (according to the game roles) [2, 3, 12]. The analysis leads to determine that most technical actions are used by players of the midfield the defense and attack lines. According to a number of authors [9,11,12,13] during the analysis of the competitive activities of football players, it is also taken into account the coordination complexity of the conditions for the implementation of technical and tactical actions, which involves a number of features of the implementation of the technical and tactical actions such as: the speed of movement under which the technical and tactical actions are performed, the degree of resistance from the opponent (limited in space and time) and others. [3]. According to Pertsukhov A.A. and Perevoznik V.V. [8], it can be stated that gaming activity is becoming more and more athletic. Accordingly the number of single duels, ball tackling and games on the top have increased. The time to make decisions and free space is getting smaller and the role of individually strong players grows. Hence, the percentage content of the cheating and the increase in mistakes in the implementation of this action grows. There is a decrease in reliability in the performance of short and middle passes and a decrease in the quantitative index.

Conclusions. The model indicators of technical and tactical actions during the game of highly- skilled players of different game roles are determined. For central and extreme defenders, predominantly short and middle passes forward (29,3; 28,4% respectively), ball receiving (22,3; 23,2%) and short and middle backward and cross (12,8; 19,3%). The central and extreme midfielders mainly use short and middle passes forward (25,2; 25,7% respectively), ball receiving (24,1; 25,9%), short and middle passes backward and cross (22,6; 20,4%). Attackers are more likely to perform ball receiving (34,4%), short and middle passes forward (16,6%).

Prospects of subsequent researches

Further research will focus on determining the team modeling characteristics of qualitative and quantitative indicators of high-skilled footballers.

Conflict of Interest. The authors declare that there is no conflict of interest.

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