IMPROVEMENT OF LONG SHOTS ON GOAL IN AN ELITE FOOTBALL TEAM

Perfecţionarea şuturilor la poartă de la distanţă în cadrul unei echipe de fotbal de performanţă

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Abstract
Background. As we know, football is worldwide considered, by specialists and not only by them, the most beloved sports discipline practiced by a huge number of young people all over the world. In this regard, the paper aims to demonstrate the usefulness and necessity of conducting studies and researches meant to improve the successful completion of the attacks for goal scoring in elite football.

Objectives. As an act of scientific research, this paper has certain objectives set as benchmarks: determining the real image of the technical-tactical profile of the team (in terms of long shots) based on the official games records regarding the attack actions mentioned above; centralization of the attacking phases and their achievement (per player, per completion, per player) and the way to improve and implicitly adapt the contents of the training session; correlation of the tactical tasks established by the coach with the actual possibilities of F. C. Voluntari team players and counting of these issues; making the players aware of how they fulfill the tactical responsibilities of an official game and giving immediate feedback by systematically presenting the tactical actions performed by the players in each game.

Methods. The following methods were used to conduct this research: study of the specialized literature documents; discussion method; method of observation and recording, statistical-mathematical and graphical representation method. The study was carried out in "F. C. Voluntari" Football Club. The observation, discussions, obtained data and records took place throughout the Championships of Division B, 2009-2010 edition. The measurements referred to: recording by observation and assistance in official and friendly games, both in and out, during the team training sessions as well; data comparison; determination of the share of "shots for goal " of the players included in this team. The records began in the 2nd stage, on August 17, 2009 and were concluded on May 24, 2010, in the 28th stage of that competitive season. There were made 15 sheets monitoring the number of shots: by distance, by execution pattern (from stationary moments and from action), all over the game, divided into 2 halves and 5 record protocols during the training sessions.

Results. The analysis of the results proves the evolution of the shot on goal technique which is essentially determined by the discovery and highlighting of biomechanics data and which influenced decisively the performance level all over the years. The changes occurred in the shot technique were supported in parallel by special modifications of the training, especially with regard to the development of motor skills (strength, speed) aiming to increase the efficiency. The study demonstrated that the team of F. C. Voluntari Bucharest, implementing the programs for long shot improvement in their training sessions, achieved the expected results and reached the objectives set for the current season. A higher efficiency of the shots made from action was found out, namely: 65.1% of the shots were made from action and only 34.9% from stationary phases.

Conclusion. In order to achieve performance, the practice of the shots on goal is an essential factor of the football game. This can be done in special training sessions, using the records of the games.

Keywords: football, shot on goal, technical-tactical training, improvement, performance

Introduction

The most popular sports game, football, generally has the same characteristics as the other sports games. Football is a harmonious combination between natural movements such as: running, kicking the ball, jumping and also the simple, accessible and attractive motor skills. At the same time, the game takes place on a background of intense mental stress which has a pronounced educational character (Cernăianu C. 1997; Apolzan D. 1999; Miu Ş. & Velea F. 2002).

Adapted to football, the game concept represents the essential features that characterize the way a team plays and is elaborated in accordance with the particularities of the players at the same time with the modern characteristics (Rădulescu M. 2007; Dima M. & Rădulescu M 2009).

It also must meet the requirements that refer to the ever increasing rapidity of the game, the improvement of the individual technique, the improvement of the players in their positions but also their use with maximum efficiency in other two or three positions, the variety and mobility of the game systems while the training concept should focus on the methodical orientation regarding the ways to develop the game concept through the efficient use of the general and specific methods and means (Nicu A 1999; Sotiriu R. & Sotiriu D. 2008).

The game technique is a system of integrated and automated movements and skills used to achieve an offensive or defensive objective (Bompa T.O. 2003). Technique is the foundation on which the game develops and improves. The specific character of the football game, which mostly involves executions with the leg, makes the game technique more difficult to learn because the hand skills were developed predominantly throughout the phylogenetic evolution (Dumitrescu Gh. 2016).

From the different classifications of the technique we bring in the one used by the National Academy of Physical Education and Sport (Motroc I. & Cojocaru V. 1991), where the technical elements are divided into: technical elements with the ball, technical elements without the ball and technical elements specific to the goalkeeper's game.

Regarding the technical elements with the ball in terms of ball transfer, the kicking of the ball involves technical procedures which are achieved by powerful and long kicks. The main utility of this procedure is materialized by the shot on goal, through powerful and accurate kicks from variable distances that can be very long (Dumitrescu Gh. 2016).

The pattern of the game itself is formed of the following components (Colibaba-Evuleț D., Bota I. 1998): tactics, technique, physical capacity, mental capacity and theoretical knowledge. All these are capacities of different levels, demonstrated by each player and each team. In this regard, tactics is a coherent system of actions selected, planned and prepared to be used in the game of the team depending on the competitor and the competition conditions, for a shorter or longer time, in order to achieve the established performance objectives.

Tactical training is one of the most dynamic components and is largely determined by the physical, technical, psychological and theoretical training which are influenced, in their turn, by the tactical training (Bârsan M. 1980a; Cojocaru V. 1995; Hoştiuc N. 2002). Given the great increase in the number of national and international competitions, the sports tactics gains a growing importance because the sports events are carried out at high and maximum intensities and the organizational forms have become more and more diverse. Regarding the action directions of the tactics according to Weineck (1980), the sports games are characterized by the variability of actions and the methods to solve tactical problems (Demeter, A. 1972; Dragnea A. 1996; Drăgan A. 2002; Dragnea A. & Mate-Teodorescu S. 2002).

The technical and tactical training of the footballers is a current topic of great interest in the Romanian football. This is enhanced by the fact that during the achievement of sports performances, the difference can sometimes be made on the basis of surprising moments, such as the long shoot for goal (Bârsan M. 1980b; Ionescu I.V. 1993; Constantin D. 1995). Therefore it is important to clearly outline this aspect of the training in football (training session or official game) and to reduce the casual variations as much as possible (Ciolcă S.M. 2006). As football encompasses more and more factors, exigencies grow. In the competitions between clubs or countries, the players prove to be increasingly gifted and more "polished" by work and passion (Motroc I. & Cojocaru V. 1991).

In this context, the basis of the performance football is to ensure in perspective the players' high capacity for performance at the current game level and according to its spectacular evolution (Iliescu A. 1968; Petrescu T & Deheleanu O. 2001). Thus, the role of the preparation of some moments of the game involves knowing the bio-psycho-social particularities of each player, especially the contradictions between the aptitudes (genetic and acquired ones) and the dynamics of the personality, with direct implications on the content and methodology of the training (Epuran M. 1975).

Purpose. This paper aims to demonstrate the usefulness and necessity of conducting studies and research meant to improve the attacks finishing with goal scoring in elite football.

Hypotheses of the paper

If a series of rationalized means is applied systematically and methodically for improving the football game, then the efficiency of the attack phases is influenced with effects in the finishing.

The development of the special motor skills can help the players to act quickly in any situation occurred during the game.

If the attack actions (long shoot) are monitored, it will be possible to intervene more coherently in the technical and tactical training of the players and to determine their tasks per position.

Material and Method. This scientific approach led to the organization of a study conducted in F. C. Voluntari. The following methods were used to make this research: study of the specialized literature, method of conversation, method of observation and recording, statistical-mathematical method and graphical representation method. The following objectives were targeted:

a) Outlining a real image of the technical-tactical profile of the team (concerning the long shots) based on the recordings of the official games in terms of the attack phases mentioned above.

b) Centralization of the attack phases and how they were performed (per player, per completion, per player) and how to improve and implicitly adapt the content of the training.

c) Correlation of the tactical tasks specified by the coach with the concrete possibilities of achievement of the F. C. Voluntari players and compatibilization of these issues.

d) Raising awareness of the players about how they fulfill their tactical responsibilities in an official game and giving immediate feed-back by systematically presenting their tactical actions achieved in each game.

The observation, discussions, records and data gathering took place during the Championships of Division B, 2009-2010 edition. The measurements referred to the registration by observation and assistance to the official and friendly games both in and out and during the team training sessions as well; data comparison enabling the determination of the share of "shots for goal " of the players included in this team. The records began in the 2nd stage, on August 17, 2009 and were concluded on May 24, 2010, in the 28th stage of this competitive season. There were made 15 sheets monitoring the number of shots: by distance, by execution pattern (from stationary moments and from action), all over the game, divided into 2 halves and 5 record protocols during the training sessions.

Results and discussions

In table 1 are listed the results of the records regarding the share of the long shots on goal in terms of number of total shots, from a distance of 8-16m, 16-25m and 25-40m, from stationary moments and from action.

Table 1. Results of the records of long shots on goal (mean; ±SD, n=15)

Technical-tactical actions	**FIRST HALF**		**SECOND HALF**		**TOTAL**	
	Inside goal	Outside goal	Inside goal	Outside goal	Inside goal	Outside goal
Shots	5.13; ±2.64	5.67; ±1.63	4.47; ±2.36	5.00; ±2.00	9.60; ±4.51	10.67; ±3.08
Distance 8-16m	2.33; ±0.89	2.53; ±1.24	2.40; ±1.24	2.20; ±0.77	4.73; ±1.94	4.73; ±1.58
Distance 16-25m	1.73; ±1.09	2.00; ±1.60	1.53; ±1.13	1.87; ±1.30	3.13; ±1.73	3.87; ±2.61
Distance 25-40m	1.20; ±1.01	1.33; ±0.89	1.00; ±1.00	0.93; ±0.96	2.20; ±1.74	2.27; ±0.96
From stationary moments	2.40; ±1.06	2.60; ±1.24	2.20; ±1.15	1.67; ±0.62	4.60; ±1.80	4.40; ±1.64
From action	3.07; ±1.54	3.60; ±1.45	2.87; ±1.77	3.13; ±1.18	5.93; ±3.03	6.73; ±2.43

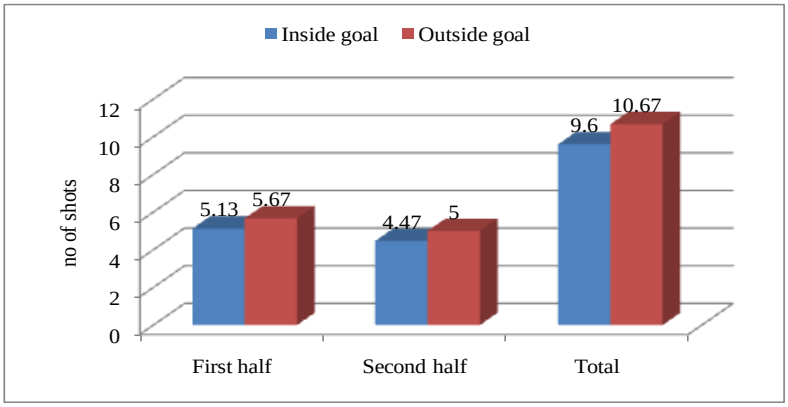

Fig. 1. Long shots on goal

The results of the recorded data analysis (mean; ±SD, n=15) highlight the value of the *shots* in the first half inside the goal – a mean of 5.13; 2.64 shots and 5.67; ±1.63 shots outside the goal, in the second half the mean value is 4.47; ±2.36 shots inside the goal and 5.00; ±2.00 shots outside the goal; the total value per match is 9.60; ±4.51 shots inside the goal and 10.67; ±3.08 shots outside the goal (fig. 1).

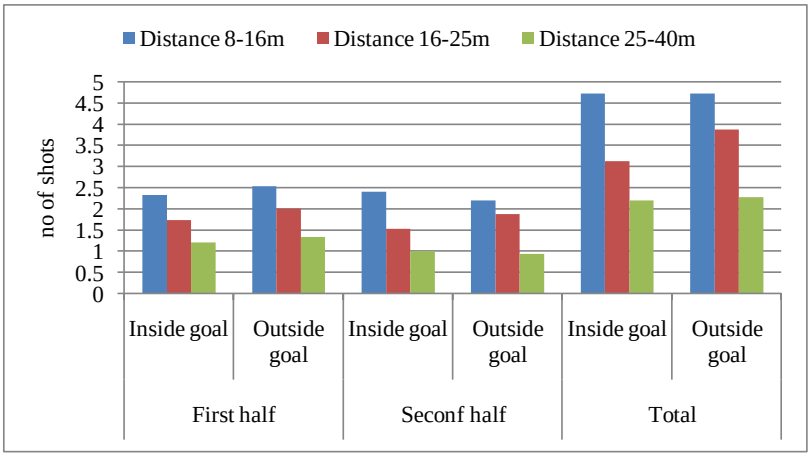

Fig. 2. Long shots for goal outside and inside the goal

Results of the shots taken from a distance of 8-16m: in the first half there is a mean of 2.33; ±0.89 shots inside the goal and 2.53; ±1.24 shots outside the goal; in the 2nd half, the mean value is 2.40; ±1.24 shots inside the goal and 2.40; ±1.24 shots outside the goal; for total match, the value of the mean is 4.73; ±1.94 shots inside the goal and 4.73; ±1.58 shots outside the goal (fig. 2).

Taking shots from a distance of 16-25m: in the first half there is a mean of 1.73; ±1.09 shots inside the goal and 2.00; ±1.60 shots outside the goal; in the 2nd half, the mean value is 1.53; ±1.33 shots inside the goal and 1.87; ±1.30 shots outside the goal; for total match, the value of the mean is 3.13; ±1.73 shots inside the goal and 3.87; ±2.61 shots outside the goal (fig. 2).

Taking shots from a distance of 25-40m: in the first half there is a mean of 1.20; ±1.01 shots inside the goal and 1.33; ±0.89 shots outside the goal, in the 2nd half, the mean value is 1.00; ±1.00 shots inside the goal and 0.93; ±0.96 shots outside the goal; for total match, the value of the mean is 2.20; ±1.74 shots inside the goal and 2.27; ±0.96 shots outside the goal (fig. 2).

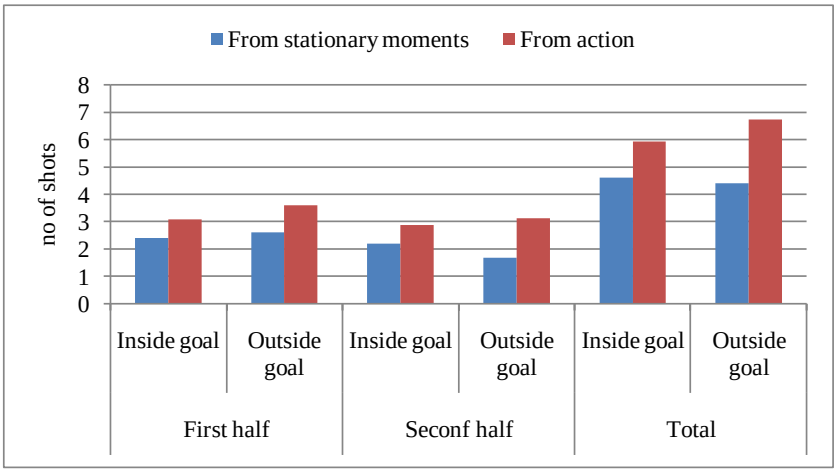

Fig. 3.Shots on goal from stationary moments and from action

Results of the shots taken from stationary moments (fig. 3): in the first half there is a mean of 2.40; ±1.06 shots inside the goal and 2.60; ±1.24 shots outside the goal; in the 2nd half, the mean value is 2.20; ±1.24 shots inside the goal and 1.67; ±0.62 shots outside the goal; for total match, the value of the mean is 4.60; ±1.80 shots inside the goal and 4.40; ±1.64 shots outside the goal.

Results of the shots taken from actions: in the first half there is a mean of 3.07; ±1.54 shots inside the goal and 3.60; ±1.45 shots outside the goal; in the 2nd half, the mean value is 2.87; ±1.77 shots inside the goal and 3.13; ±1.18 shots outside the goal; for total match, the value of the mean is 5.93; ±3.03 shots inside the goal and 6.73; ±2.43 shots outside the goal.

Conclusions

The evolution of the shot on goal technique is essentially determined by the discovery and use of the biomechanical data and has influenced decisively the level of performances over the years.

In the future, a more in-depth biomechanical analysis is proposed meant to highlight what is more effective in the tactical action finished with the shot on goal.

The changes occurred in shot technique were supported in parallel by special modifications of the training, especially with regard to the development of motor skills (strength, speed), in order to increase the efficiency.

This study demonstrates that the team of F. C. Voluntari Bucharest, using the training programs for improvement of the long shots, achieved the expected results, reaching their goals for the current season.

A higher efficiency of the taken shots was found out as follows: 65.1% of the shots were taken from action and only 34.9% from stationary phases.

The practice of the shots on goal is an essential factor for performances achievement in football game. This practice can be carried out in special training sessions, using the records of the games.

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