### KNOWLEDGE – International Journal Vol.34.6

September, 2019

# SPECIAL FEATURES IN DEVELOPMENT OF SPEED-POWER QUALITY AT THE MODERN EDUCATIONAL-TRAINING SYSTEM OF 15 - YEARS-OLD FOOTBALL PLAYERS

#### Kamen Simeonov

Ruse University "Angel Kanchev", Bulgaria, simeonov\_kamen@abv.bg

Abstract: Modern football game is linked to the introduction of science and technical progress, strict laws of professionalism and the increasing mass scale and popularity of the game among teenagers. Modern science has determined that football game occurs based on the idea of ball games, supporting the development and culture of the peoples since ancient times to the present day and history acquired phenomenon in public life. The magic of football game was created in its content dynamics and the uniqueness of the game situation, the possibility individually each playing to manifest in the complex collective interactions to develop thought processes, seeking to realize their abilities for the benefit of the collective idea. Most current task in the modern theory and methods of training at 15 year-old is the optimization of the educational and training process. Management of the multiannual sports training of young players is a purposeful process of impact from the coach regarding a particular facility (team and riders) providing optimal solutions to common and specific tasks of preparing for reliably achieving the strategic objective - bringing the subject to conditions of high sports mastery. The young footballer is a subject of influence which by peculiarities of their behavior (level of preparedness) reflects the effectiveness of impact. Adolescents players in the course of its diverse and targeted training "consume" the training impact and behavior become carriers of feedback on the adequacy between effort and improvement of functions. Management functions coach is perceived as control of the various countries of the preparation of the player and making adjustments for adequate reflection. The main means of education and training of young players are generally developing speciallypreparatory exercises and racing. At the stage of specialization cover age period 15-16 years continues specialized work to develop and maintain strength, endurance, agility and quickness types in young players. The aim of this study is to improve speed-strength training 15-year-old through an innovative system of organization and planning of the training process in basic training cycles. As part of this system is developed by our model specifically targeted resources to develop speed-strength qualities of the trainees. This process includes three main points: choice of means and methods of training depending on age morphofunctional features and level of sports training of trainers; clarification of approaches to the application of specially-targeted exercises for speed-power training; strengthening the system for monitoring and evaluation of the physical condition of young players as a whole and its individual components.

Keywords: young players, speed-strength qualities development, training

#### 1. INTRODUCTION

At the initial stage of a general degree physical education and sport are of great importance. The foundations of targeted educational impacts. Sports activities close to nature, the child shows interest in spontaneous motor activity and diverse sports activities [6]. Determination of the age of the body of children and adolescents is indispensable in organizing the coaching of young players. Anthropometric information about the body and limbs in adolescents, the work of the cardiovascular and respiratory system tell us to what extent their capabilities in training load [2,4,10].

#### 2. SUMMARY

Sports training of young players depend on the effectiveness of methods and training devices aimed at widening the specific potential. A number of authors have studied the development of physical skills in adolescents. The conclusions that have been made is that between the ages 15-16 years should be working primarily for the development of speed-strength qualities, durability and improve forms of display of speed and coordination of movements [1,3,4,7,8,9,11].

The aim of this study is to improve speed-strength training 15-year-old through an innovative system of organization and planning of the training process in basic training cycles. As part of this system is developed by our model specifically targeted resources to develop speed-strength qualities of the trainees. This process includes three main points:

1. Selection of means and methods of training depending on age morpho-functional features and level of sports training of trainers;

## KNOWLEDGE – International Journal Vol.34.6

#### September, 2019

- 2.. Clarification of approaches to the application of specially-targeted exercises for speed-power training in various weekly cycles of preparation and competition period depending on the specific conditions for training;
- 3. Establishing a system for monitoring and evaluation of the physical condition of the players as a whole and its individual components.

#### ORGANIZATION AND METHODOLOGY

Pedagogical experiment was conducted during 2016/2017 year with 15-year-old divided into experimental and control groups. Comprises two experimental mezotsikala and corresponding mikrotsikli included in the structure of the run and the competition period. The main focus is to increase their specific performance. This is a lengthy and complex process. Take into account the fact that at this age lays the foundation for optimal control and regulation of motor acts as a condition of psychomotor development and improvement. The construction of soccer-specific motor skills in experimental group is based on speed-strength qualities and improvement of the forms of manifestation of the speed of the trainees. The complexes of specifically targeted exercises are divided into three groups:

- **1. First group** means to overcome the external resistance (with devices without gear pairs);
- 2. Second group means of jumps preparation;
- **3. Third group** means of the speed of the motor response, frequency of movement and the coordination of movements.

The planning of training sessions we made in compliance with training cycles - autumn and spring training cycle. Autumn training cycle covering the period from early August to the second week of December - a total of 20 weeks. Preparatory period is five weeks, the competition is 15 weeks. Spring training cycle covers the period from the third week of January to the second week of June - a total of 20 weeks. Preparatory period is five weeks, the competition is 15 weeks. In the run through two cycles working on the following percentages of specially targeted exercises for 15-year-old:

For the first group - 60% in the overall and maximum power and 40% for explosive muscle strength of the lower limbs;

For the second group - 45% in the overall and maximum power of the lower extremities and 55% for special explosive bouncing;

For the third group - 60% of the speed of the motor response, frequency of movements and 40% for the coordination of movements.

In racing periods main tasks are: Realizing the sports score that meets the individual and team level technical and tactical training of young players and maintain a high level of speed-strength qualities.

The research program is built on the following principles: bi- participatory planning in autumn and spring official matches meetings; with the volume values of the funds corresponding to the individual preparation of 15-year-old; Selection of exercises without ball-type running fast, running with a change of direction left, right, back in various combinations after sound or verbal signal.

In the control group worked with a training program for football MES and BFU.

#### **RESULTS ANALYSIS**

The data were processed using the program SPSS, by performing the analysis of variance. Comparative final data from the study of the speed-power characteristics of 15-year-old are shown in Table 1.

Table 1: Comparative final data from the study of speed-power qualities of 15-year-old

No	Experimental group				Control group				d	Pt
	x <sub>1</sub>	mx <sub>1</sub>	$s_1$	V <sub>1</sub> %	x <sub>2</sub>	$mx_2$	$s_2$	V <sub>2</sub> %		
1.	3.18	0,02	0.09	2.93	3.44	0.05	0.23	6.85	0.28	0.90
2.	55	0.77	3.44	6.27	50.35	0.78	3.49	6.94	4.65	0.99
3.	61	1	4.47	7.33	55.8	1.12	5.03	9.01	5.2	0.98
4.	242	1.51	6.76	2.79	232.7	1.55	6.97	2.99	9.3	0.99

Indicators: 1. "30 meters. Smoothly running" (sec.); 2. "Vertical jump from place" (cm); 3. "Vertical jump to strengthening" (cm); 4. "jump seat with two legs" (cm).

Further analysis of the final data in the test group shows a greater effectiveness of the work in the experimental group. This is due to the applied research program that increases the effectiveness of training process. This

#### KNOWLEDGE – International Journal Vol.34.6 September, 2019

optimizes not only the physical but also the technical and tactical training them as essential components of their sporting expertise. Comparative data from the study of the muscles of the lower limbs are depicted graphically in Figure 1.

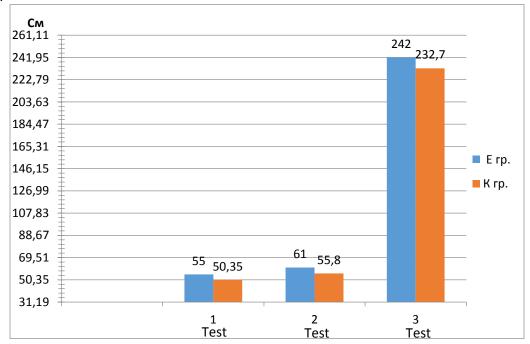


Fig.1. Comparative final data from the study of muscles of the lower limbs: 1. "Vertical jump from place" (cm); 2. "Vertical jump to strengthening" (cm); 3. "Jump seat with two legs" (cm).

#### 3. CONCLUSION

Revealed regularities motivate the need for direct application of the developed system of exercises to develop speed-strength qualities of 15-year-old. During this age period increased level of speed-power qualities allow competitors complex technical and tactical activities to be performed at high speed. Improves maneuverability and operability of young players throughout the game which increases the level of personal and psychological qualities.

#### **LITERATURE**

Dimitrov, L. V. (2019). System selection, training and training of young players. Monograph.

Dushkov, V., Stefanova, D. & Djarova, T. (1986). Functional studies in sport and mass gymnastics. MF.

Zeliazkov Ts., & Dasheva, D. (2017). Fundamentals of sports training. Four extra edition.

Ignatov, G. V. (2015). Current standards for assessing the physical training of football referees. Sports and science. Issue 5.

Lazarov, I. (2014). Anthropometric models of athletes in running middle distance. Thesis. NSA.

Mileva, M. M. (2014). Theoretical and practical aspects of pedagogy of physical education sport. Monograph.

Nikolenko, V. V. & Shamardin, V. M. (2015). Long-term training of young football players in the path to success. Sommit. Book.

Nikolov, J., Mihov, P., Tishanski, Iv.. & Stoenchev, Z.. (2016). Concept BFU development of young players. Simeonov, K. V. (2015). Current trends in the training of young players., Sb. scientific papers of RU, Volume 54 series 8.2, pp. 111-114.

Tsvetkov St. (2016). Aerobic capacity. Modern aspects of research and evaluation. .

Tsekova, S. (2014). Analysis of the competition and the driving load in two annual cycles footballers of FC NSA Sports and science. Bk. 2.