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THE DEVELOPMENT OF MOTOR QUALITIES OF 12-14 YEAR-OLD FOOTBALL PLAYERS

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Abstract. *The study concern the experimental verification, for a series of means and methods regarding the football game, effective in lifting up the manifestation index of motor qualities of 12-14 year-old football players.*
Research result based on the tests method, lead to the elaboration of a training program for eficiency of players motricity. The data, picked and recorded in the observations individual files, lead to finding that the juniors training progam, reviewed was elaborated, keeping in mind first, the players motor particularities regarding the achieving the sports performance.
Keywords: *motor skills, motor profile, performance, route, experiment.*

Introduction

The characteristics and development trends of the football game must find early their places and weight in training the children and junior teams. This practice is beneficial for future sports performance in football. At the age of 12-14, the physical, physiological, motor and psychological availabilities of young people are in a continuous evolution.

The repeating of procedures and tactical technical actions under less difficult conditions, helps to a faster development of children's abillities on executing many sports exercises. The dosage of the effort is made in concordance with functional posibilities of the growing body. The level of their physical training being more lower, must alternate the exercises with different character.

The number of weekly training hours of children could be identical with the adults, but the lenght and intensity of activities are lower. The sports training planning must be done in concordance with age paricularities. It is important to give argument to the structure and content of each training, in this way in its environment to be efficiently developed the players main motor qualities that serve as starting point in forming of the basic motor skills [1, 3, 4].

Means and methods

The football player's biomotric profile is given by the effect of the basic motor qualities such as: speed, skill, resistance and strength, which contributes to the increasing the body's exercise capacity and implicitly, to achieving performance. Some specialists consider that in the training structure must be indicated not only the hours meant for general physical training, but also the time value that must be reserved for forming of motor qualities, like general and special resistance, speed, strenght, mobility, etc. The most efficient is the variant in which 35% of time is allowed in speed development, 30% for strength development and 35% developing of the resistance. It was established that the most efficient methodology, used at the beginning of the sports training, referes giving of 40% of time developing qualities of strength-speed. The use of the strength, mobility developing means, must be given only 15% of time.

In order to highlight the development of the motor qualities that lead to the formation of the junior football player, an experiment was carried out in the interval of the macro cycle: 01.02. 2017-01.02.2018, on a sample of 8 subjects of 12-14 year-old, distributed in 2 groups, from C.S.S. Alexandria, Football Section, consisting of more speed tests:

A. The speed I have followed the parameters of the cyclic speed (sprint, acceleration), and also the acyclic speed (execution of various motor actions) using: the alternative method, the method

of exercising of the game actions and the one of the training under pressure, were shown:the intensity, lenght and period of means for measuring the speed (Table 1).

Table 1. The intensity, duration and period of the means used to measure the cyclical speed in the training of team are illustrated in the following tables:

Means	Intensity	Duration	Period
- Two players, one behind the other, the back one has the ball that he strikes upon the first player, but at the same time will move to the left or right about 7 meters;the first sprints after the ball pointing to which part the teammate went, by a slight return of the head, recovers the ball and passes it to the first player.	high	3 x 5 reps	c
- Passes in two about five meters away by performing some motor actions: a squat, a push-up, or a knee jump.	high	4 x 5'	c
- Variants of speed running (80 m - 4 x 20), 20 m back running, 20 m added steps running, 20 m speed running, 20 m steps running	high	4 x 5 reps	c
- Each player with the ball; ball launching 10 - 20 m, sprint to it; between sprints the ball is leaded 10-12 m in jogging	high	10 - 12 reps	c

In case of the accyclic speed, means used for measuring the speed were: relay and shuttl.

Table 2. Relays race and shuttles for developing of reaction, execution, and moving acyclic speeds.

Means	Intensity	Duration	Period
- Two ways sprint relay and back-running 10 meters	high	4-5x	p+c
- The tossed running relay through the poles on 20 meters	high	4-5x	p+c
- Shuttles -pass from a touch at a distance of 10-15 meters	high	4-5'	p+c
- Shuttles- striking the ball with the head, keeping it in the air, being able to be used also as a contest	high	4-5'	p+c
- Shuttles - 20 meters away: Conducting - passing - assuming - reversing 180 degrees - conducting - passing - assuming - reversing 180 degrees - passing and moving at the opposite lap	high	5-6'	p+c
- Competition: the ball midway 50 meters between two participants; at the signal the two will sprint towards the ball to get into possession, then try to reach it.	high	4-5x	p+c

The distances in speed suggested through analogy of the exercise program meant for developing the speed manifestations through field movements (number of sprints in a match).

Table 3. The number of sprints per match

Distance/player	J.K.	D.M.	I.S.	D.P.	Total	Medium	Cca	m
10 meters	8	9	7	6	30	7.5	8	80
20 meters	4	4	4	3	15	3.75	4	80
30 meters	-	3	3	2	8	2	2	60
Over 30 meters	-	1	2	1	4	1	1	30
Total	12	17	16	12	57	14.25	15	

In conclusion, a defender effectuates a number of 15 sprints of 10-30 meters which equivalents with passing through a distance of 250 meters in anaerob regime.

B. In order to illustrate the resistance, which is the motor quality that depends on the work capacity, by overcoming the fatigue phenomenon, through a high rate of restoration of the body after a tiring activity, on its background manifesting all the other motor qualities were used methods, as: - the long-running method; - the method for developing resistance in speed, in conditions close to the game; - the method training with intervals; - the training method with intervals the 45 second, applied to the development of resistance. During the experiment, were used action systems such as: means, their distance and duration, intensity, pause, and pause content.

Table 4. Action systems for measuring the resistance

Means	Distance Duration	Intensity	Pause	The content of the pause	Period
Relaxed Running	3x100 meters	Low	24-30"	Walk	p
Relaxed Running	5x60 meters	Low	15-20"	Walk	p
Sprint	5x20 meters	High	18-20"	Breathingexercises	p

The specific, complex, essential motor quality in the physical baggage of the footballer, which was an element of the experiment, was the expansion. Without a good expansion, he is unable to solve the game problems (marking, dispossession, interception, rejection with the head, scoring) of the job.

Methods used: 1 - method of non-specific jumps; 2 - specific jump method.

Table 5. Systems of development used in experiment

Means	Dosage	Pause between reps	Pause between series	Period
- Jump on one or both legs	2x50		1.5-2'	p+c
- Jump on one or both legs with a rotation through the air	2x15		1-2'	p+c
- Jump on one or both legs over obstacles	3x20		1-2'	p+c
- Jumps in length and height	2x10	1-2'	2-3'	p
- Jumping with sandbags on the calves	3x20		1-2'	p
- Rope jumps	2x2-3'		1'	p
- Step jumped, stepped up	20-30 meters		1-1.5'	p+c
- Jump from one place, and jogging to headball striking	3x10		1'	c

For improving of the expansion development program were use:

-rope jumping test,

- expansion development programs without ball,

- expansion development program, without ball:

- expansion development program with the ball:

An essential contribution to the accomplishment of the game's actions, which develops through the characteristic and necessary dynamism of the technical-tactical actions and their application in the game, in conditions of psychic strain, is the skill, which is conditioned by balance, which is conditioned by the quality of the vestibular device and the kinesthetic sensations.

D. Skill as being a perfectible motor quality, in

the experiment I introduced specific test regarding its development during the football game such as:

- skill in speed,
- skill of lower limbs,
- skill in narrow spaces in adversity.

E. Strength is the ability of the neuromuscular system to overcome resistance through neuromuscular contraction.

During the football game, the following specific forms of manifestation of Strenght appear:- strenght of striking the ball,- the strength of each player in the game, the strenght to make a great effort, the ball striking strenght, the strenght to defeat more samples.

The data collected through the observation and centralized charts on this chapter suggested the setting of the training objectives according to which we developed the training program, as well as the experimental tests.

The results: To emphasize the important role of using motor skills in the football game economy, the organizers of the experiment have proposed to carry out some control tests.

One of them represented it – Kicking at the Two Gates.

Table 6. The results obtained at the trial - "The Two-Gate Trail"

Subjects	Striking the ball to goal	Striking the ball to goal	Goals	Procentge of goals
C1	20(10+10)	18(10-8)	8(5-3)	40
C2	20(10+10)	17(8-9)	9(4-5)	45
C3	20(10+10)	18(9-9)	10(6-4)	50
C4	20(10+10)	15(6-9)	7(2-5)	35
P1	20(10+10)	14(7-7)	6(4-2)	30
P2	20(10+10)	15(8-7)	8(5-3)	40
P3	20(10+10)	16(6-10)	5(2-3)	25
P4	20(10+10)	15(6-9)	7(3-4)	35

From the table data it can be shown the valuable superiority of the results that belong the subjects abreviately noted, from the first experimental group as a result of a better physical-motric training improved through appliying of a training program well planned, for the offensive behaviour. The other test consisted of the race in the penalty area, specific for deffensive behaviour made of:

- moving on exploring from the 11 meters point, sprint forward, until 16 meters.

Table 7. The results obtained at the specific sample of the defensive behavior

Subjects	1	2	3	4	5	6	7	Total
C1	10,0"	18,5"	18,0"	19,0"	20,5"	20,0"	20,0"	143,0"
C2	18,2"	18,3"	18,7"	19,0"	10,2"	19,5"	20,0"	132,9"
C3	18,7"	18,3"	19,0"	19,5"	20,0"	20,3"	20,0"	135,8"
C4	19,5"	19,5"	19,0"	20,0"	20,5"	20,0"	20,0"	138,5"
P1	19,0"	19,5"	20,0"	20,0"	20,2"	20,6"	20,7"	140,0"
P2	19,1"	19,4"	19,5"	20,0"	20,3"	20,8"	20,9"	140,0"
P3	20,2"	19,4"	19,4"	20,0"	20,5"	21,0"	21,5"	142,0"
P4	20,5"	20,0"	19,5"	20,0"	20,5"	22,0"	21,5"	145,0"

The results recorded on the table demonstrates the effect of the motor qualities on the 2nd experimental group subjects evolution, as a result in physical-motor training, more efficient for defensive behaviour.

Conclusions and proposals The conclusions for every scientific work must be tied by the established connections between the obtained results and their analysis.

Taking into account the specific aspects of the acceleration of biological development phenomenon, correlated with the training process, we found that the 12-14 year old juniors have a biological potential on the maturity threshold, which makes them able to withstand the rigors imposed by the regime training of the seniors, subject to methodological rationalizations.

The efficience of used means on motor training, has been materialised at the end of the 12th month period through superior results recorded on experiment at control tests for speed, resistance, expansion and strenght, compared with the ones from the initial stage.

At the end it was proposed as control test, the race on the penalty area that was used at the end of the study to be taken in account, analysed and eventually inserted in the program as specific for the defensive behaviour.

In this context, a number of hypotheses have been verified in practice which led to the following conclusions:

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