

## PRELIMINARY STUDY ON THE PHYSICAL TRAINING OF JUNIOR FOOTBALL PLAYERS 16-18 YEARS OLD IN PRIVATE CLUBS IN THE BUCOVINA AREA

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### **Abstract**

The analysis of the level of motor (physical) training of the teams included in the finding experiment demonstrates that in most cases, regardless of the training institution, the indices of motor skills development are below the requirements of F.R.F

### **Introduction**

In Romania, the main institutions dealing with the selection and training of children and juniors are "High Schools with Sports Program", "School Sports Clubs", "Centers of Excellence". In recent years, in Romania has emerged a superior form of organization, clubs. If the institutions mentioned above have a unitary system in the organization and methodology of training, which is regulated by the Romanian Football Federation (FRF) or the Ministry of Education and Research, at the level of private sports clubs it is felt the need for a unitary training program.

### **Material-method**

It was assumed that the application of an adapted training program in the training of junior footballers, 16-18 years old, in Private Sports Clubs, will contribute to improving the level of basic components of sports training on physical training, technical-tactical and quality level of performing players.

The object of the research is the training process of the junior footballers, 16-18 years old, within the Private Sports Clubs, based on the application of the experimental program with adaptive content.

The purpose of the paper is to improve the training system for junior footballers, 16-18 years old, in Private Sports Clubs, based on the application of the experimental program with adaptive content.

In order to assess the level of development of the motor indices of junior footballers 16-18 years old, an initial experiment was performed

where the results of the two teams expected to be included in the basic experiment were to be compared with the F.R.F. to the researched indicators and with the values of the average levels of the tests obtained within 10 L.P.S. in the country (units subordinated to the Ministry of Education and Research). F.R.F. proposes for junior footballers aged 16-18 10 indicative tests for athletes at this age. The two teams that were subjected to research were: ACS Juniorul Suceava and CSS Bucovina Rădăuți. We should mention the fact that, out of the 10 tests, most of them represent the level of development of the motor indices, except for two tests (30 m. Dribbling and transmitting the ball at a distance), which in our opinion are of a physical-technical nature.

The results of the comparison of the development of motor (physical) indices are presented by the footballers from ACS Juniorul Suceava and CSS Bucovina Rădăuți compared to the value of the physical tests elaborated by F.R.F. and the average level of 10 L.P.S. from the country.

The physical tests were as follows:

1. *Speed 30 m* - (start standing at the coach's signal, the best time of two attempts is recorded) - norm F.R.F. - 4.1 ".[5], (p.120).
2. *Long jump from the spot* - (the best jump from two attempts is noted) - the F.R.F. - 2.45 m. [5], (p.120).
3. *Running 12 '* - (runs on the athletics track in groups of 6 athletes) - F.R.F. - 3200 m. [5], (p.120).
4. *Pentasalt* - (starting from both legs and appreciating the best jump in two attempts) - the F.R.F. - 14 m. [5], (p.120).
5. *Speed 30 m. Dribbling* (the athlete on the starting line with the ball at his feet; at the signal leads the ball by successive hits during the 30 m. At least 3 touches are required and the crossing of the finish line marked by touching the ball and the best time is noted) - FRF norm - 4.7 ".[5], (p.121).
6. *Speed 5 x 30 m.* (Similar to the example above, but repeated 5 times, the player is forced to resume the next run after 25 ". Each attempt will be scored and then averaged) - FRF rule - 2. 3".[5], (p.121).
7. *Transmission of the ball at a distance* - with the right and left foot (the ball in place; a lane with a width of 10 m will be drawn; 3 trials will be awarded for each leg. The final result will be given by the sum of the best tests with each foot) - FRF norm - 87 m. [5], (p.121).
8. *Vertical expansion* - (the difference between the height with the raised hand and the point maximum in jump from the spot) - the norm F.R.F. - 60 cm. . [5], (p.121).
9. *3 x 1600 m.* - (runs in groups of 6 players on the court in three series, noting the average time) - the norm F.R.F. - 5 ', 50 ".[5], (p.121).

10. *Throwing the ball from the edge* - (throwing the ball from the edge of the field by hand in three attempts and then calculating the average) - the norm F.R.F. - 25 m. [5], (p.121).

Nr crt	INITIAL PHYSICAL TESTS	ROMANIAN FOOTBALL FEDERATION	ACS JUNIORUL SUCEAVA	CSS BUCOVINA RĂDĂUȚI	The average level of 10 L.P.S. in the country	RHYTHM OF THE INCREASE OF THE AVERAGE LEVEL OF PHYSICAL TESTS		
1.	Speed 30 m	4,1"	4,3"	4,5"	4,6"	4,87 %	9,75 %	- 6,52 %
2.	Long jump from the spot (m.)	2,45	2,27	2,08	2,07	-7,35 %	-15,11%	9,66 %
3.	Running 12 ' (m.)	3200	3000	2800	2700	- 6,25 %	- 12,50 %	11,11 %
4.	Pentasalt (m.)	14,00	10,50	10,72	10,40	-25,00 %	-23,43 %	0,96 %
5.	Speed 30 m. dribbling (sec.)	4,5"	4,8"	5,1"	5,2"	6,66 %	13,33 %	- 7,69 %
6.	Speed 5 X 3 0 m (sec.)	23"	25"	29"	30"	8,69 %	26,08 %	-16,66%
7.	Transmission of the ball at a distance (m.)	87,0	82,0	70,0	68,0	-5,75 %	-19,55 %	20,59 %
8	Vertical expansion (cm.)	60,0	52,0	47,0	46,0	-13,34 %	-21,67 %	13,04 %
9.	3 X 1600 m. (min./sec)	5',50"	6',30"	6',39"	7',00"	11,42%	14,00 %	-7,14%
10.	Throwing the ball from the edge (m)	26,0	20,0	19,0	18,0	- 23,08 %	-26,93%	11,11%

### Conclusions

In the physical test "running 30 m", it is observed that the average time in this test of the footballers from ACS Juniorul Suceava is longer than that of the Romanian Football Federation in absolute sizes by 0.2 "and in relative sizes by 4, 87%, and compared to the average test time on the 10 LPS in the country is lower in absolute sizes by -0.3 "and in relative sizes by -6.52%. Also, the average time on the physical test" running 30 m "from CSS Bucovina Rădăuți is higher than that of FRF in absolute sizes by 0.4 "and in relative sizes by 9.75%. Thus, neither of the two teams: experimental and control, does not reach the FRF scales at the speed test 30 m. It follows that, at this test a new methodical attitude is required regarding the development of this rather important capacity in the game of football.

At the physical test "Long jump from the spot", it is observed that the average level in the test of the footballers from ACS Juniorul Suceava

is lower than that of the Romanian Football Federation in absolute sizes by - 0.18 cm. And in sizes relative to - 7.35%, and compared to the average level of the test on the 10 LPSs in the country is higher in absolute sizes by 0.20 m. and in relative sizes by 9.66%. of the same physical test within CSS Bucovina Rădăuți is smaller than that of FRF in absolute quantities by - 0.37 cm and in relative quantities by - 15.11% In other words, the same trend is observed in this case, when the results of all the teams subjected to the finding experiment are below the FRF requirements This test representing a combined capacity (force-speed) confirms its correlation with the speed test (30 m.), where the results were much lower than the norms proposed by the FRF

Regarding the physical test "Running 12", it is observed that the average level of the test at ACS Juniorul Suceava is lower than that of the F.R.F. by 200 m. in absolute sizes and in relative sizes by 6.25%, and compared to the average level of the test on the 10 L.P.S. in the country is higher in absolute sizes by 300 m. and in relative sizes by 11.11%. Within CSS Bucovina Rădăuți, the average level of the physical test is lower than that of the F.R.F. in absolute sizes by 400 m. and in relative sizes by 12.50%. From the analysis of the obtained data, it is observed that also in the endurance test the results of all teams are below the requirements of F.R.F. Taking into account this information, it is necessary to modernize the methodology of training junior footballers for this physical test that develops a capacity with a significant role in the game of football.

In the physical test "Pentasalt", it is observed that the average level in the "pentasalt" test of the footballers from ACS Juniorul Suceava is lower than that of the Romanian Football Federation in absolute sizes by - 3.50 m. And in relative sizes with - 25.00%, and compared to the average level of the test on the 10 LPS in the country, it is higher in absolute sizes by 0.10 m. And in relative sizes by 0.96%. Also, the average level of the "pentasalt" physical test within CSS Bucovina Rădăuți is lower than that of FRF in absolute sizes by -3.28 m. And in relative sizes by -23.43%. It is also observed that in the physical test "pentasalt" neither of the two teams (experimental and control) does not reach the FRF scales, for this test being necessary a new attitude from a methodological point of view regarding the development of this capacity.

At the physical test "30 m dribbling", it is observed that the average time at the test "30 m dribbling" of the footballers from ACS Juniorul Suceava is longer than that of the Romanian Football Federation in absolute sizes by 0.3 "and in relative sizes by 6.66%, and

compared to the average test time on the 10 LPSs in the country, it is smaller in absolute sizes by -0.4 "and in relative sizes by -7.69%. Also, the average time of the same physical test within CSS Bucovina Rădăuți is longer than that of F.R.F. in absolute sizes by 0.6 "and in relative sizes by 13.33%. The same trend is observed in this physical test, where neither of the two teams, which are part of the finding experiment, reaches the average time required From the methodical point of view, a new orientation of the attitude regarding the development of this capacity is required, which plays an extremely important role in the game of football.

Regarding the physical test "5 X 30 m", it is observed that the average sample time at ACS Juniorul Suceava is longer than that of FRF by 2.0 "in absolute quantities and in relative quantities by 8.69%, and compared to the average test time on the 10 LPS in the country is smaller in absolute sizes by - 5.0 "and in relative sizes by - 16.66%. Within CSS Bucovina Rădăuți, the average time of the physical test is longer than that of FRF in absolute sizes by 6 , 0 "and in relative sizes by 26.08%. The same trend is observed in this case, when the results of all teams subjected to the finding experiment do not reach the standard average time proposed by FRF. the game of football.

In the physical test "Transmission ball at a distance", it is observed that the average level of the sample within ACS Juniorul Suceava is lower than that of FRF in absolute sizes by - 5.0 m. And in relative sizes by - 5.75%. , and compared to the average level of the test on the 10 LPS in the country, it is higher in absolute sizes by 4 m and in relative sizes by 20.59% Also, the average level of the physical test within CSS Bucovina Rădăuți is lower than the FRF in absolute sizes by -17.0 m and in relative sizes by -19.55%, so neither team: experimental and control, does not reach the FRF scales in the physical test "ball transmission Remote". It follows that this test also requires a new methodological attitude regarding the development of this ability with an extremely important role in the game of football.

At the physical test "Vertical Detention", it is observed that the average level in the "Vertical Detention" test of the footballers from ACS Juniorul Suceava is lower than that of F.R.F. in absolute sizes by - 8.0 cm. and in relative sizes by - 13.37%, and compared to the average level of the test on the 10 L.P.S. in the country is higher in absolute sizes by 6 cm. and in relative sizes by 13.04%. Also, the average level of the same physical test within CSS Bucovina Rădăuți is lower than that of F.R.F. in absolute sizes by -13.0 cm. and in relative sizes by - 21.67%. It is also observed that in this physical test neither of the two teams: experimental

and control, does not reach the FRF scales, for this test being necessary a new attitude from a methodological point of view regarding the development of this basic physical element in the game of football.

Regarding the physical test "3 X 1600 m", it is observed that the average test time at ACS Juniorul Suceava is longer than that of FRF by 40 "in absolute and relative quantities by 11.42%, and compared to of the average test time on the 10 LPS in the country is smaller in absolute sizes by - 0.30 "and in relative sizes by - 7.14%. Within CSS Bucovina Rădăuți, the average time of the physical test is longer than that of FRF in absolute sizes by 49 "and in relative quantities by 14.00%. It is observed that even in this test none of the researched teams reaches the average time proposed by F.R.F., requiring the modernization of the methodology of training junior footballers for this physical test.

In the physical test "Throwing the ball from the edge", it is observed that the average level of the sample within ACS Juniorul Suceava is lower than that of FRF in absolute sizes by 6.0 m. And in relative sizes by 23.08%, and compared to the average level of the test on the 10 LPS in the country, it is higher in absolute sizes by 2 m and in relative sizes by 11.11% Also, the average level of the physical test within CSS Bucovina Rădăuți is higher less than the FRF in absolute sizes by 7.0 m and in relative sizes by 26.93% In terms of the quality of the "throwing the ball from the sidelines" physical test, none of the teams research did not reach the value of the scale imposed by FRF for this test, imposing the need to modernize the methodology of training junior footballers in this context.

Physical test Statistical indicators		Speed 30 m	Long jump from the spot (m.)	Run ning 12 ' (m.)	Penta salt (m)	Speed 30 m. dribbling (sec.)	Speed 5 X 3 0 m (sec.)	Transmis sion of the ball at a distance (m.)	Vertic al expan sion (cm.)	3x1600 m (min. sec.)
Average level of physical test	Initially the experiment group	4,3"	2,27	3000	10,50	4,8"	25"	82	52	6',30"
	Final group experiment	4,2"	2,40	3200	13,50	4,6"	24"	85	62	6',00"
Standard deviation	Initially the experiment group	0,074	0,08	104,41	1,20	0,088"	0",88	3,43	5,99	8"

	Final group experiment	0,124	0,09	104,41	0,97	0,07"	1"	3,96	5,57	13",33	0,81
Coefficient of variability $C_v$ (%)	Initially the experiment group	1,72%	3,52%	3,48%	11,42%	1,83%	3,52%	4,18%	11,51%	2,05%	8,85%
	Final group experiment	2,95%	3,75%	3,26%	7,18%	1,52%	4,16%	4,65%	8,98%	3,70%	3,24%
Dynamics of the physical test in the final period compared to the initial period	Absolute deviation	- 0,1"	0,13	200	3	-0,2"	-1"	3	10	-30"	5
	Growth rate	-2,33%	5,72%	6,66%	28,57 %	-4,17%	-4%	3,65%	19,23 %	-7,69%	25%
	Index	0,9767	1,0572	1,0666	1,2857	0,9583	0,9600	1,0365	1,1923	0,9231	1,25

## References

- [1] BANISTER E.- Modelarea performanței sportive de elită  
 Testarea fiziologică a sportivilor de performanță. - vol. II. - C.C.P.S. - București, 1997
- [2] BOMPA T.O. Periodizarea - Dezvoltarea calităților biomotrice, Editura EXPONTO. - Constanța, 2001
- [3] MOTROC I.-Fotbal. Sportul la copii și juniori. - vol. LXIV, Editura C.N.E.F.S. - București, 1989
- [4] BAROGA L.- Educarea calităților fizice combinate, Editura Sport-Turism. București, 1984
- [5] <https://www.frf.ro/publicatii/metodologia-pregatirii-copiilor-si-juniorilor/>
- [6] NICU A. și colaboratorii, (1993), Antrenamentul sportiv modern, Editura Editis, București
- [7] RĂDULESCU M, VELEA F., PĂUN D., (2006), Fotbal pentru copii și juniori – Culegere de idei și soluții metodice, București
- [8] RĂDULESCU M., (2007), Fotbal – tehnica- factor prioritar, Editura Răzeșu, București
- [9] RĂDULESCU M., COJOCARU V., Ghidul antrenorului de fotbal – copii și juniori, Editura Axis Mundi, București
- [10] RĂDULESCU, M., (2007), „Fotbal – tehnica - factor prioritar”, Editura Răzeșu, București