

working in tougher conditions (80%) and only 20% use weight exercises in order to develop specific strength.

This confirms the analysed methodological orientation of the trainers and offers us solid arguments in promoting these training means with the experimental group.

BIBLIOGRAPHY

1. Barbu C. The training and participation of the professional female runners in high level competitions, Bucharest: Atlantis, 1998. 140p.

2. Bompa T.O. The theory and methodology of sport training – Timing. Bucharest: C.N.F.P.A., 2001.273p

3. ColibabaEvulet D et al. Sport Games. Theory and methodology. Bucharest:Aldin, 1998, p.116-144, 327p

4. Gyongyossy Z. Basic ideas:Bucharest:RAO, 2001, p.78-80,127p

5. The federal athletic trainer, 1996, p.76-77.

STUDY REGARDING THE DESIGN OF THE PHYSICAL AND TECHNICAL TRAINING OF JUNIOR PLAYERS ACTING IN THE GOAL AREA IN THE SOCCER GAME (UNDER 19)

Vasile Catalin SAVU, Constantin PLOESTEANU

„Dunarea de Jos” University of Galati

Abstract:

Many of the problems encountered by the coaches refer to the efficiency, both from the individual point of view and from the team perspective in general . By recording the games at the physical, technical, tactical and psychological level we can establish almost exactly the evolutionary curve of the team or of the players considered separately. This fact could bring new data to the coach and thus he is able to intervene, to design the physical and technical training at the parameters of the official game.

Keywords: training, strikers, design, efficiency.

INTRODUCTION

Each player has his own technical and tactic profile as well as his own characteristics in a team. Moreover, the bio-motive qualities and their distinct combinations are unique for each position.

The experts in training understand very well what differentiate a position from another and they apply these principles in the daily training process, developing and implementing programs specific to the soccer game.

All the technical and tactic sessions have to use specific sets of exercises according to the operating area. In other words, the coaches will do right highlighting the specific adaptations of each position, planning sets of exercises specific to each position.

So, under the name of “individualization”, we can define the adaptations of sport technique and educational process to the particularities of each player, according to his main features and to physical technical and tactic deficits specific to each position

THE PURPOSE of the research is the efficient design of the training by using methods and means that would solve the complex tasks of the individual and group training, individual or specific to the target group of the research.

TASKS OF THE RESEARCH

- To study the literature of specialty related to the research topic;
- To establish the research methodology and the work plan;
- To identify and use the training means specific to the goal area and their elaboration as programmes;
- To experiment the training programmes;
- To assess the efficiency and quality of the training;
- To elaborate the operational models, mentioning the aims and the parameters of the effort at ages under 19, starting from the objective realities of the competitive match;
- To analyse and interpret the results

RESEARCH HYPOTHESIS

We consider that the design of the content of the training shall improve the physical and technical factor and shall lead to an increase in the performance of the players in the goal area.

METHODS

We have used the following research methods in order to fulfill the aim of the research and to achieve its objectives:

- scientific documentation (bibliographic);
- pedagogical observation technique;
- test method;
- pedagogical experiment;
- mathematical and statistical method;

- comparative method;
- graphical method

CONTENT RESEARCH

The groups involved in the research are:

- Experimental group: F.C.M. Dunărea Galati – A junior players (striker and attacking midfielders)
- Control group: Otelul Galați – A junior players. (strikers and attacking midfielders)

The location of the experiment:

The experiment took place on "Siderurgistul" field in Galati, where the playing surface is made of artificial turf, so that the training has not been influenced during the winter period.

The organisation of the research:

This study took place during a competitive year (September 2011- May 2012) and it involved:
-The organization and deployment of the tests. The periodization of the research tests:

1- initial testing – during 01 – 05 September 2011, in order to identify the initial values of the studied parameters;

2- intermediary testing – during 15 – 19 December 2011;

3- final testing – during 26- 31 May 2012.

- Implementation of the training programme based on completion area specific games.

-Mathematical and statistical analysis and data interpretation

Table 1- MODEL OF THE FRF (Romanian Football Federation)- Player qualities

POSITION OF THE PLAYER ON THE FIELD	PHYSICAL	TECHNICAL	TACTICAL	MENTAL
STRIKERS	Strength(duel) Speed Vivacity Agility	Completion(shot) Receiving Heading Dribbling/Feint	Defensive retreat Permutation Call/counter call Feint Timing	„egoism” Opportunism Speed Combativity Perseverance
NO.10	According to the type of player- according to the game concept	Receiving and ball mastery Pass efficiency Dribbling Completing-shot Final pass	Intelligence Anticipation Tactical sense Timing Demarcation	Leader Creativity Taking risks Lucidity Trust Calm

Starting from the **MODEL OF THE FRF (Romanian Football Federation) - Player qualities/Positions we have selected the following tests:**

Used tests (approved by F.R.F.):

- Physical tests: - Speed on a 30m distance;
- *Speed (Agility) – running – shuttle run (4x10m);*
- *Strength – vertical expansion;*
- Technical tests: - *Shot on goal: accuracy;*
- *Hitting the ball with the head;*
- *Ball driving, dribbling*

RESULTS

After having put into practice the experimental programme we elaborated, we have reached the following conclusions:

The work hypothesis has been confirmed by the superior results obtained by the players of the experimental group when compared to those of the control group. **For the physical tests:**

-Speed - running on a 30m distance, statistically significant differences ($p < 0.05$) have been obtained at the final test in favour of the experimental group, compared to the control group;

Table 2 .Speed - 30 m. Testul t for two independent lots from successive test.

	results	lot	average	scor t	p
initial testing	seconds	LE	4,3500	-1,203	0,252
		LM	4,3700		
	points	LE	56,43	0,795	0,442
		LM	55,00		
intermediary testing	seconds	LE	4,2700	-2,763	0,017
		LM	4,3100		
	points	LE	65,00	2,500	0,028
		LM	61,43		
final testing	seconds	LE	4,1800	-4,141	0 ,003
		LM	4,2500		
	points	LE	75,00	4,768	0,000
		LM	66,43		

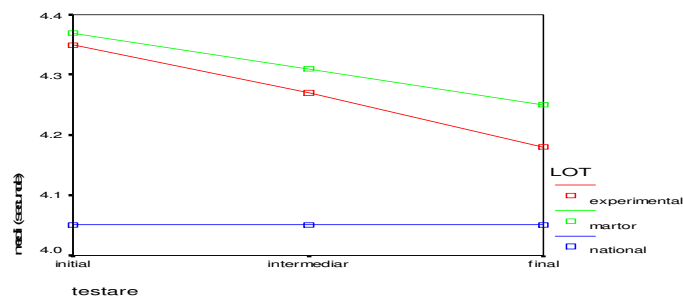


Fig1. Evolution of the average (speed - 30 m) between the successive tests (seconds).

Comparison between the two teams

-Speed (Agility) – running – shuttle run (4x10m)

– statistically significant differences ($p < 0.05$) have

been obtained at the final test in favour of the

experimental group, compared to the control group;

Table 3. Speed (Agility) 4 x 10 m. Testul t for two independent lots from successive test.

	results	lot	average	scor t	p
initial testing	seconds	LE	11,25	0,665	0,531
		LM	11,10		
	points	LE	27,50	-0,461	0,661
		LM	31,25		
intermediary testing	seconds	LE	10,72	-0,469	0,656
		LM	10,80		
	points	LE	48,75	0,469	0,656
		LM	45,00		
final testing	seconds	LE	10,27	-2,655	0,038
		LM	10,70		
	points	LE	71,25	2,655	0,038
		LM	50,00		

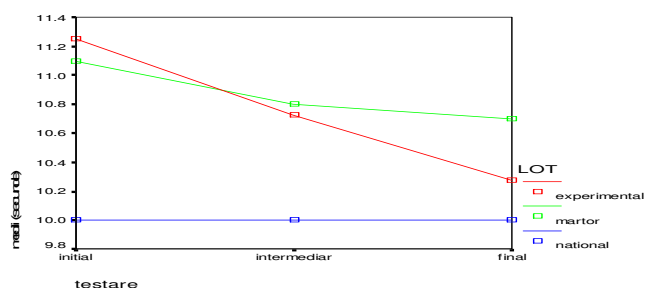


Fig 2. Evolution of the average (agility 4x10m) between the successive tests (seconds).

Comparison between the two teams

-Strength – vertical expansion - statistically significant differences ($p < 0.05$) have been obtained

at the final test in favour of the experimental group, compared to the control group.

Table 4 Strength – vertical expansion. Testul t for two independent lots from successive test.

	results	lot	average	scor t	p
initial testing	centimeters	LE	42,00	0,000	1,000
		LM	42,00		
	points	LE	24,29	0,000	1,000
		LM	24,29		
intermediary testing	centimeters	LE	48,00	1,025	0,325
		LM	46,29		
	points	LE	52,14	1,009	0,333
		LM	43,57		
final testing	centimeters	LE	54,57	2,210	0,047
		LM	51,57		
	points	LE	82,86	2,306	0,040
		LM	70,71		

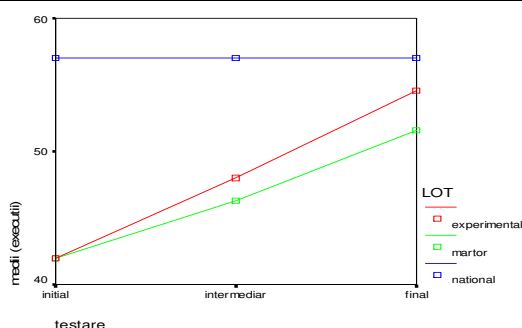


Fig 3- Evolution of the average (strength – vertical expansion) between the successive tests (centimeters). Comparison between the two teams

Table 5. Total score - physical tests. Testul t for two independent lots (*strikers*) from successive test.

test	lot	average	score t	p
initial testing	LE	108,22	-0,271	0,791
	LM	110,54		
intermediary testing	LE	165,89	1,782	0,100
	LM	150,00		
final testing	LE	229,10	3,065	0,010
	LM	187,14		

The results under discussion are illustrated in the following average diagram.

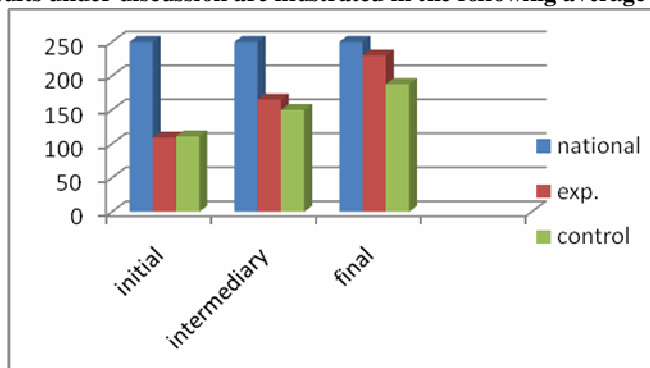


Fig.4 - Evolution of the average Total number of points (physical tests) between the successive tests.

Comparison between the two teams .
Comparing the results with those of the *national team*, we notice the fact that the results are gradually getting closer to the national average, that is 250 points. At the final testing, the average performance of the AT group in the experimental team (229,10 points) got quite close to the national

average; the AT group of the control team had a lower average, of 187,14 points.

For the technical tests:

- **Shot on goal: accuracy** - statistically significant differences ($p < 0.05$) have been obtained at the final test in favour of the experimental group, compared to the control group.

Table 6. Shot on goal: accuracy. Testul t for two independent lots from successive test.

	lot	average	scor t	p
initial testing	LE	29,50	-1,769	0,127
	LM	35,75		
intermediary testing	LE	45,25	0,202	0,847
	LM	44,50		
final testing	LE	69,25	2,462	0,049
	LM	51,50		

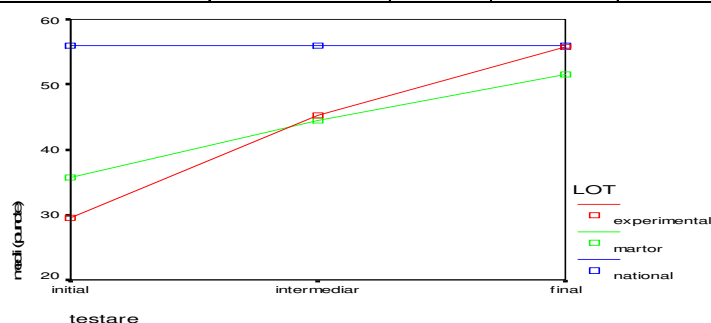


Fig 5- Evolution of the average (shot on goal: accuracy) between the successive tests (points).
Comparison between the two teams

- **Hitting the ball with the head** - statistically significant differences ($p < 0.05$) have been obtained

at the final test in favour of the experimental group, compared to the control group;

Table 7 Hitting the ball with the head. Testul t for two independent lots from successive test.

	results	lot	average	scor t	p
initial testing	number of executions	LE	1,50	-0,655	0,537
		LM	1,75		
	points	LE	15,00	-0,655	0,537
		LM	17,50		
intermediary testing	number of executions	LE	3,25	0,397	0,705
		LM	3,00		
	points	LE	32,50	0,397	0,705
		LM	30,00		
final testing	number of executions	LE	5,00	2,611	0,040
		LM	3,75		
	points	LE	50,00	2,611	0,040
		LM	37,50		

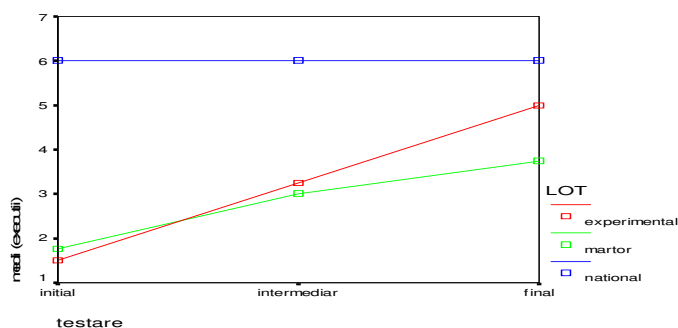


Fig 6 - Evolution of the average (hitting the ball with the head) between the successive tests (execution).

Comparison between the two teams

- **Ball driving, dribbling** - statistically significant differences ($p < 0.05$) have been obtained at the final test in favour of the experimental group, compared to the control group;

Table 8 Ball driving, dribbling. Testul t for two independent lots from successive test.

	results	lot	average	scor t	p
initial testing	seconds	LE	26,00	0,000	1,000
		LM	26,00		
	points	LE	27,50	0,000	1,000
		LM	27,50		
intermediary testing	seconds	LE	21,75	-0,832	0,437
		LM	22,50		
	points	LE	40,00	1,000	0,391
		LM	37,50		
final testing	seconds	LE	17,75	-2,635	0,039
		LM	20		
	points	LE	65,00	2,449	0,049
		LM	50,00		

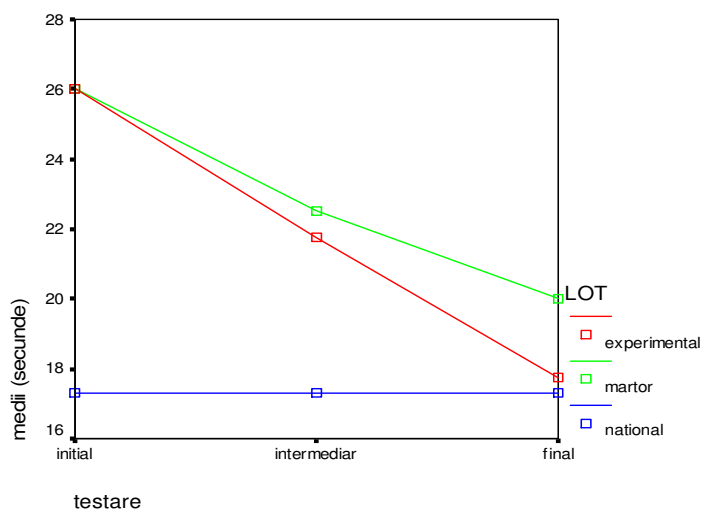


Fig.7 Evolution of the average (ball driving, dribbling) between the successive tests (seconds).

Comparison between the two teams

Table 9 Total score - technical tests. Testul t for two independent lots (*strikers*) from successive test.

test	lot	average	score t	p
initial testing	LE	72	-0,839	0,434
	LM	80,75		
intermediary testing	LE	117,75	1,654	0,149
	LM	112		
final testing	LE	184,25	5,084	0,002
	LM	139		

The results under discussion are illustrated in the following average diagram.

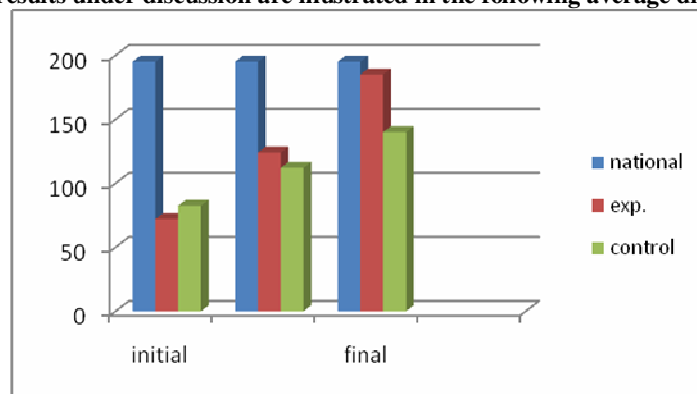


Fig.8- Evolution of the average *Total number of points (technical tests)* between the successive tests.

Comparison between the two teams
(strikers)

Comparing the results with those of the **national team**, we notice the fact that the results are gradually getting closer to the national average, that is 195 points. At the final testing, the average performance of the Strikers' group in the experimental team (184,25 points) got quite close to the national average; the Strikers' group of the control team had a lower average, of 139 points.

CONCLUSIONS

-The training of junior players under 19, irrespective of the field area must focus mainly on the improvement of skills, abilities and technical knowledge, necessary to an organised practice of soccer in competitions. In this respect, the first aspect we must take into account is not that of forming a team, but that of forming players with real opportunities for progress.

-It is necessary to approach training within the context of the national and international model. Only in this way can we make progress according to the requirements of the modern soccer.

- In order to have permanent control over the entire training programme and to monitor the progress

achieved, and also for the efficiency of the training programmes, it is necessary to measure permanently the players' performance.

BIBLIOGRAPHY:

1. BOTA, I. – Modele de joc și pregătire. București: Sport-Turism, 1984
2. CIOLCĂ, S.M. – Modelul de joc și modelarea pregătirii juniorilor pentru fotbalul de performanță, Editura Cartea Universitară, București, 2004;
3. COLIBABA-EVULEȚ, D. și BOTA, I. – Jocuri sportive. Teorie și metodică. Editura Aldin, București, 1998;
4. ENOIU, R. – Metoda modelării antrenamentului la structura jocului de fotbal. Brașov: Editura Univers, 2001
5. NETA, GH. – Strategia performanței în fotbal, Editura DACIA, Cluj-Napoca 2008.
6. RĂDULESCU, M., COJOCARU, V. – Ghidul Antrenorului de fotbal - Copii și juniori. București: Editura Axis Mundi, 2003.
7. STĂNCULESCU, V. – Ghidul antrenorului profesionist de fotbal pentru 364 zile ale unui an competițional, Editura Transilvania Expres, Brașov, 1999.