CONCLUSIONS

-The method of the games in the squares a useful tool for the training of the players regardless of their value, the field state or the period of the competitive year.

-This method is complex and it can be used by any coach in various forms.

-This method ensures the necessary degree of effectiveness, because the movement of the entire team, as well as of the groups of players is very fast, without losing time and without unnecessary field movements, ensuring a complex training to all coaching factors.

RECOMMENDATIONS AND PROPOSALS

The coaching process must be focused on forming the mental-physical "virtuosities " and their use on the field by practical coaching sessions when the junior players learn the game, forming skills of modern soccer playing.

By the implementation of the training programmes the coach (the specialist) must increase the average of the players' results so that the latter become more performant and constant.

For an active participation of the players in the training process it is necessary to use training methods that restores the children's virtuosity and their pleasure of playing.

BIBLIOGRAPHY:

1. MARSEILLOU,P.- Futbol. Programacion anual del entrenamiento de la 12 a 15 anos, Editura Paidotribo, Badalona,2010

2. NETA, GH. – Strategia performanței în fotbal, Editura DACIA, Cluj-Napoca 2008.

3.PLOEȘTEANU, C. –Fotbal. Antrenament / Competiție, Editura Europlus, Galați, 2007.

4..RIUS,J.S.- 1009 Exercitii si jocuri de fotbal, Editura Paidotribo, Barcelona, 2007

5. STĂNCULESCU, V. – Ghidul antrenorului profesionist de fotbal pentru 364 zile ale unui an competițional, Editura Transilvania Expres, Braşov, 1999

THE OPTIMIZATION OF THE PERFORMANCE CAPACITY FROM THE PERSPECTIVE OF THE IDENTIFICATION OF THE RESTRICTIVE FACTORS FOR JUNIOR PLAYERS UNDER 17 AT SOCCER

Constantin PLOEŞTEANU, Vasile Catalin SAVU
„Dunarea de Jos" University of Galati, ROMANIA
catalin_savu_1971@yahoo.com

Abstract

The optimization of the performance capacity is the main goal of the sports training, which actually encompasses not only the activities "in the limelight" – the practice and the competition – but also all the measures related to their organization, planning, leading, and scientific development carefully arranged in a vast training strategy. The experts understand that this performance does not rise from an accumulation of facts and events, but it represents a product of the effects determined by the concentric action of some objective and subjective factors and they intend to determine the maximal efficiency of these factors establishing their hierarchic value, their chronological order and the necessity of their intervention in the sports training which is the most important in the optimization and the development of the performance capacity to junior players under 17.

Keywords: control, restrictive factors, efficiency, training.

INTRODUCTION

The instability of results and performances as well as their shifting towards the biological and psychical limits which still remain unknown to the human being urge to reflection and analysis.

The ideal of accomplishing great performance in the field of sports may be considered today a great challenge, to which a large number of persons contribute (sportsmen, coaches, doctors, pharmacologists, biochemists, psychologists, managers, experts) as well as special disciplines among which we can enumerate: Sports Science, The theory of motor activities, The theory of physical education and sports, Didactics of physical education and sport, Physical Therapy, etc. Some other disciplines with a fundamental character can be associated to these ones: Biology, Psycho-pedagogy, Sociology, Medicine, Pharmacology, Physics, Mathematics, Management, IT, etc.

All the specialists involved in the performance sports activity consider that performance is the result of an excellent work led to the physical and psychical limit of each person

being thus multiply determined. It is worth noting that no one can state with certainty yet which discipline or factor has the greatest importance in contriving the great performances.

Thus, the use of such interventions is sustained by current practical arguments, namely the professionalization of the entire process of training performance soccer players.

THE PURPOSE of the present research is to contribute to the optimization of the performance efficiency in the soccer game for the junior players under 17, from the perspective of the identification of the restrictive factors, through the development, recovery and confirmation of the training programs in training and competitions.

RESEARCH OBJECTIVES

[1] Studying the ways of optimizing the performance efficiency and their adaptation to the junior players under 17 in the soccer game.
[2] The identification of the restrictive factors of the performance efficiency for the juniors players under 17 in the soccer game.
[3] The development of a training program for the junior players in order to identify and to fight against the negative effects of the restrictive factors of the performance efficiency.
[4] The experimentation of the programs suggested during a competitive year.
[5] The assessment of the experiment and the argumentation of the research results.
[6] Personal files made for each player according to the operating area.

RESEARCH HYPOTHESIS

[1] We consider that the identification of those restrictive factors which influence the performance in a particular way for the junior players under 17 will finally contribute to the optimization of the efficiency in the soccer game.
[2] We consider that the implementation of the program training based on simplified games specific for the operating area will finally contribute to the limitation of the damaging action caused by the restrictive factors of the performance efficiency and will increase the players' individual performances and implicitly those of the team.

METHODS

We have used the following reserch methods in order to fulfill the aim of the research and to achieve its objectives**:** questionnaire survey method, test method, pedagogical experiment, mathematical and statistical method, comparative method, graphical method.

CONTENT RESEARCH

The experimental design of the research paper

Before beginning our research an preliminary study was made. This helped us to find out the opinion of the experts in the field, which led us towards the research itself. This study was conducted through a questionnaire applied to a sample of 50 subjects, the subjects being experts in the field, namely coaches of the under 17year old category.

The groups involved in the research are:

- Experimental group: F.C.M. Dunărea Galati - junior players under 17;
- Control group: L.P.S. Galati – Junior players under 17;

Both experiment and control group is made of 18 players. The keepers, even if they took part in the trainings, they are not included in the experiment because they have a special status in soccer team and a specific training program.

The organisation of the research paper:

The present research took place during a competitive year (July 2010 – June 2011) and involved:
- The organization and deplomet of the tests. The periodization of the research tests:
[1] The initial test - which took place between 26 – 30 July 2010 was applied in order to discover the initial values of the studied parameters;
[2] The intermediate test – took place between 15 – 19 December 2010;
[3] The final test – took place between 31 May – 3 June 2011.
- The implementation of the training program based on simplified games specific to the operating areas.
- The statistical and mathematical analysis and the data interpretation.

Used tests:

- Anthropometric tests; - Height; Weight; Chest elasticity
- Functional tests: - Ruffier's test; Vital capacity
- Physical tests: - Speed on a 50 m distance
  - Force – length expansion
  - Endurance – 12 minute running.
- Technical tests: - Shot on goal: accuracy
  - Hitting the ball with the head
  - Completion from the lateral side
  - Ball driving, dribbling

RESULTS

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

1. The analysis of the dynamics of the physical development level demonstrated the fact that the evolution of the anthropometric indices is within the normal age range and has not been a restrictive factor in conducting the experimental research.

Table 1. The analysis of the results obtained in anthropometric tests

Group	ANTHROPOMETRIC TESTS								
	Height (cm)			Weight (kg)			Elasticity thorax (cm)		
	T1	**T2**	**T3**	**T1**	**T2**	**T3**	**T1**	**T2**	**T3**
GROUP EXPERIMENTAL F.C.M. DUNĂREA GALAȚI	178.5	180.0	181.5	68	68	69	12	12	11
	175.5	177.5	178	65	65	66	11	11	10
	174.5	176.0	176.5	72	72.5	71	10	10	10
	166.0	168.5	170	54	57	58	8	10	10
	171.5	174.5	175	71	71	70	9	9	11
	161.0	164.0	166.5	55	58	59	11	12	12
	165.5	169.5	172	58	65	66	7	9	10
	160.5	163.0	166.5	56	57	58.5	8	9	10
	167.0	171.5	172	57	62	61	7	12	13
	178.5	180.0	181	65	66	67	9	11	11
	164.5	167.5	169	55	57	59	9	11	11
	163.5	167.0	167.5	60.5	68	68.5	8	10	11
	180.0	182.0	183	62	65	66	8	10	10
	172.0	175.0	175	64.5	68	68	7	8	12
	164.0	166.5	167.5	55.5	57	57.5	8	11	11
	169.0	171.0	171.5	65	69	69	7	10	10
	174.5	178.0	179	62	65	66	7	8	9
	159.0	160.5	161	56	58	59	7	9	9
Arithmetical average "$\bar{x}$"	**169.16**	**171.77**	**172.91**	**61.19**	**63.80**	**64.36**	**8.5**	**10.11**	**10.61**
Standard deviation "σ"	**6.48**	**6.22**	**5.94**	**5.56**	**5.12**	**4.63**	**1.53**	**1.24**	**1.00**
Coefficient of variation "v"	**3.83%**	**3.62%**	**3.43%**	**9.09 %**	**8.03 %**	**7.19 %**	**18.07%**	**12.28 %**	**9.49 %**
GROUP CONTROL L.P.S. GALAȚI	175	179.5	181.5	64	65	70	11	11	11
	161.5	173	174	53	58	59	10	12	12
	175	179	179.5	67	69	68	9	10	10
	171.5	172.5	173	64.5	69	69	6	8	10
	167	169	170.5	76	79.5	77	9	10	10
	166.5	170	172	55.5	59.5	61	8	13	11
	177.5	177.5	179.5	66	67.5	72	8	14	10
	172	177.5	180.5	58	63	65	8	9	12
	179.5	182	183.5	63	67	69	9	10	10
	188	190	191	68	69.5	71	7	10	10
	171	171.5	172.5	62.5	67.5	66.5	10	10	10
	182	185	185	74	76.5	76.5	9	10	10
	182.5	184	184	72	76	75	8	10	10
	163	164	167	60.5	66.5	67	8	10	9
	172	172.5	173	61	67	66	9	10	10
	171	174	177	59.5	67	69	8	10	10
	170.5	173	174.5	62	64.5	65.5	9	11	10
	181	183.5	185	61.5	64	63	10	12	10
Arithmetical average "$\bar{x}$"	**173.69**	**176.52**	**177.94**	**63.77**	**67.55**	**68.30**	**8.66**	**10.55**	**10.27**
Standard deviation "σ"	**6.87**	**6.45**	**6.14**	**5.87**	**5.32**	**4.77**	**1.15**	**1.38**	**0.73**
Coefficient of variation "v"	**3.95%**	**3.65%**	**3.45%**	**9.20 %**	**7.87 %**	**6.98 %**	**13.33%**	**13.10 %**	**7.10 %**

2.The analysis of the dynamics of the results obtained in functional tests, both for the experimental group and for the control group indicate remarkable progress, fact which proves that the body's adaptation to effort at ages under 17 is perfectible and may be a restrictive factor in the training optimization.

Table 2. The analysis of the results obtained in functional tests

LOT	FUNCȚIONAL TESTS					
	TESTS RUFFIER			VITAL CAPACITY (cm^3)		
	T1	**T2**	**T3**	**T1**	**T2**	**T3**
GROUP EXPERIMENTAL F.C.M. DUNĂREA GALAȚI	4	4	4	3500	3700	4100
	5.8	5.8	3.4	3600	3900	4200
	2.2	2.2	4.0	3300	3500	3800
	1.6	2.2	2.1	3400	3600	4000
	7	7	2.8	3600	3800	4100
	1.6	3.4	2.0	3700	3900	4000
	7	6.4	6.8	3300	3600	3800
	2.2	5.8	3.6	3500	3700	4000
	10.0	2.2	2.8	3600	3800	4100
	4.6	5.2	5.0	3300	3700	3900
	7.6	5.8	5.5	3600	3700	3900
	5.8	9.4	6.4	3300	3500	3800
	10.0	4.6	4.8	3300	3500	3800
	3.4	7.6	4.0	3600	3800	4100
	7.0	8.2	7.8	3400	3600	3800
	5.8	5.2	6.4	3400	3600	3900
	7.6	6.4	6.2	3300	3500	3900
	5.2	4.6	6.4	3500	3700	4000
Arithmetical average " $\bar{x}$ "	**5.46**	**5.33**	**4.66**	**3455.55**	**3672.22**	**3955.55**
Standard deviation " σ "	**2.53**	**1.99**	**1.68**	**134.25**	**128.26**	**125.70**
Coefficient of variation "v"	**46.45%**	**37.41%**	**36.17%**	**3.88%**	**3.49%**	**3.17%**
GROUPCONTROL L.P.S. GALAȚI	8.8	8.8	7.6	3300	3600	3900
	5.2	2.2	3.8	3500	3700	4000
	5.8	8.8	5.8	3300	3500	3800
	2.2	4.0	3.4	3600	3800	4100
	2.6	2.2	3.4	3600	3800	4000
	4.6	4.6	8.8	3300	3500	3800
	10.0	8.2	5.8	3400	3600	3800
	10.6	7.0	6.4	3500	3700	4000
	4.6	7.0	11.2	4300	3500	3700
	13.0	13.6	12.6	3400	3600	3900
	9.4	4.6	4.6	3700	3900	4100
	4.6	5.8	10.6	3600	3700	3900
	5.2	5.2	7.6	3400	3500	3700
	4.6	5.8	5.6	3500	3600	3800
	4.6	5.8	2.8	3500	3800	4100
	7.6	9.4	7.6	3400	3500	3700
	8.6	8.8	7.0	3500	3700	3900
	10.8	11.8	5.2	3800	3700	
Arithmetical average " $\bar{x}$ "	**6.82**	**6.86**	**6.65**	**3533.33**	**3650**	**3900**
Standard deviation " σ "	**3.00**	**2.95**	**2.70**	**228.52**	**121.33**	**133.33**
Coefficient of variation "v"	**44.09%**	**43.05%**	**40.71%**	**6.46%**	**3.32%**	**3.41%**

3. In the case of the dynamics of the level of physical training the obtained results demonstrate that solving it by soccer-specific means has led to remarkable progress, obtaining the following results :

-Speed on a 50m distance, statistically significant differences ($p<0.05$) were obtained at the final test in favour of the experimental group, compared to the control group;

Table 3- Speed - 50 m. Testul t for two independent lots from successive test

	results	lot	media	scor t	p
initial testing	seconds	LE	7,2214	-0,754	0,465
		LM	7,2400		
	points	LE	68,57	0,306	0,765
		LM	67,86		
intermediary testing	seconds	LE	7,0900	-2,106	0,049
		LM	7,1600		
	points	LE	78,57	2,683	0,050
		LM	74,29		
final testing	seconds	LE	6,9414	-3,256	0,007
		LM	7,0543		
	points	LE	85,00	2,121	0,020
		LM	80,71		

Force – length 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 Force – length expansion. Testul t for two independent lots from successive test

	results	lot	media	scor t	p
initial testing	metre	LE	2,0100	0,000	1,000
		LM	2,0100		
	points	LE	26,25	0,000	1,000
		LM	26,25		
intermediary testing	metre	LE	2,1300	1,711	0,138
		LM	2,0850		
	points	LE	43,75	1,555	0,171
		LM	37,50		
final testing	metre	LE	2,2800	2,534	0,044
		LM	2,1950		
	points	LE	68,75	2,668	0,037
		LM	55,00		

-

Endurance – 12 minute running – 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 5 Endurance – 12 min**.** Testul t for two independent lots from successive test

	results	lot	average	scor t	p
initial testing	metre	LE	2360	-2,056	0,062
		LM	2385,71		
	points	LE	22,86	-2,038	0,064
		LM	27,14		
intermediary testing	metre	LE	2480	1,273	0,227
		LM	2457,14		
	points	LE	43,57	1,578	0,140
		LM	38,57		
final testing	metre	LE	2650	4,214	0,001
		LM	2587,14		
	points	LE	70,71	4,472	0,001
		LM	63,57		

Table 6- SCORE - tests. for two

TOTAL physical Testul t

independent lots from successive test.

test	lot	average	score t	P
initial testing	LE	117,68	-1,016	0,330
	LM	121,25		
intermediary testing	LE	165,89	1,746	0,106
	LM	150,36		
final testing	LE	224,46	4,196	0,001
	LM	199,28		

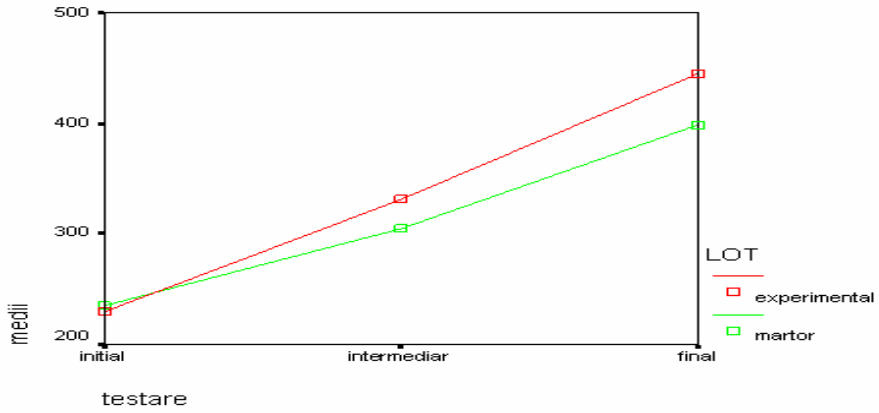

Fig.1 Evolution of the average *Total number of points (physical tests)* between the successive tests. Comparison between the two teams

4. In the case of the dynamics of the level of technical training our research paper has confirmed the viability of the training programmes, thus obtaining a special progress of the experimental group, compared to the control group.

-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 7. Shot on goal : accuracy. Testul t for two independent lots from successive test.

	lot	average	scor t	p
initial testing	LE	34,14	0,416	0,685
	LM	33,00		
intermediary testing	LE	43,14	0,385	0,707
	LM	42,29		
final testing	LE	52,29	1,817	0,034
	LM	48,14		

-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 8. 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	2,00	0,000	1,000
		LM	2,00		
	points	LE	20,00	0,000	1,000
		LM	20,00		
intermediary testing	number of executions	LE	3,43	1,162	0,268
		LM	3,00		
	points	LE	34,29	1,162	0,268
		LM	30,00		
final testing	number of executions	LE	4,86	2,333	0,038
		LM	3,86		
	points	LE	48,57	2,333	0,038
		LM	38,57		

-Completion from the lateral side - 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 9 Completion from the lateral side. Testul t for two independent lots from successive test.

	lot	average	scor t	p
initial testing	LE	5,71	0,346	0,535
	LM	8,57		
intermediary testing	LE	18,57	0,235	0,620
	LM	17,14		
final testing	LE	32,14	1,851	0,037
	LM	22,86		

-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 10 Ball driving, dribbling. Testul t for two independent lots from successive test.

	results	lot	average	scor t	p
initial testing	seconds	LE	25,00	-1,758	0,104
		LM	26,86		
	points	LE	28,57	0,722	0,484
		LM	25,71		
intermediary testing	seconds	LE	22,29	-0,949	0,361
		LM	23,14		
	points	LE	40,00	1,162	0,268
		LM	35,71		
final testing	seconds	LE	19,43	-0,560	0,586
		LM	19,86		
	points	LE	50,00	1,162	0,268
		LM	45,71		

Table 11. TOTAL SCORE - technical tests. Testul t for two independent lots from successive test.

test	lot	average	score t	P
initial testing	LE	130,00	0,035	0,973
	LM	129,71		
intermediary testing	LE	217,00	1,742	0,107
	LM	203,14		
final testing	LE	284,14	4,919	0,000
	LM	246,57		

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

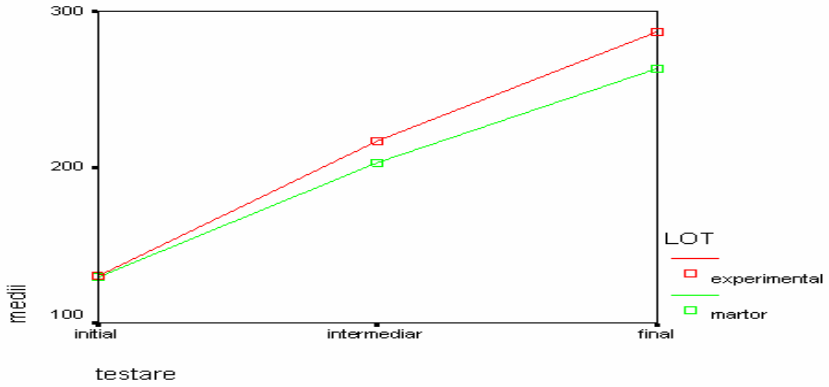

Fig.2- Evolution of the average *Total number of points (technical tests)* between the successive tests. Comparison between the two teams

5. Analyzing all the data resulted from our own training programmes, we have identified the following restrictive factors that influence the performance capacity at the level of junior players under 17 in the soccer game:

- ✓ Development level of the morphofunctional indices of the players;
- ✓ Development level of the dominant bio-motor qualities in the soccer game (I; V; R);
- ✓ Development level of the bio-motor combined qualities specific to the soccer game (ÎxV; ÎxR; ÎxVxR);
- ✓ The level of correct assimilation of the basic and the playing technique specific to the operating area;
- ✓ The influence of the psychological factors under the conditions of physical, technical, tactic expression when running out of time and space;
- ✓ Development level of the intellectual capacity, contributing to the effective tactic thinking while training and playing;
- ✓ Dosing the training programme by making effective the methodical aspects contributing to the biological recovery of the body after effort.

CONCLUSIONS

[1] The optimization of the training process in the soccer game and consequently of the performance capacity represents a priority for the experts in the field.

[2] Taking into consideration the fact that at the above mentioned age we work according to the operating area, the literature of specialty provides a very small amount of materials, useful for coaches.

[3] The training programs for the junior players under 17 must focus mainly on the formation of a set of technical-tactical skills and knowledge, that are necessary for competition soccer practice. In this respect, one must not focus firstly on constituting a team, but on forming players with real progress possibilities.

[4] Carrying out physical training by soccer-game specific means must be a priority in the training process, so that at the end of the junior playing period the player must be prepared to solve the game requirements according to the basic and complementary operating areas.

[5] In order to optimize the performance capacity, the entire preparation and the whole arsenal included in it must be structured according to the principle of directing and adjusting, according to the degree of sportsman's body response and adaptation to the demands of the training.

[6] To have permanent control over the entire training process and to monitor the progress made and the efficiency of the training programmes, it is necessary to measure permanently the players' performance.

[7] The identification and fighting against the factors that generate failure, also named restrictive factors, depends on the coach's skills and abilities in the field.

RECOMMENDATIONS AND PROPOSALS

Thus, after the development of the experiment and taking into account its results, we can conclude the following for the practical activity;

- the conception of guidebooks useful for the professional activity of the coaches working with junior players under 17;
- the implementation of a training programme that is specific to the operating area should be made after having established the players' level of physical training;
- the assessment system for each area of the field must emphasize the physical, technical, tactical valences of the players as well as those of their functional ability ;
- the necessity of using individualization on positions and operating areas during the training ;
- the necessity of preparing planning and monitoring documents, that include individual files of the players in order to monitor their evolution in training process and in competitions.

BIBLIOGRAPHY:

1. APOLZAN, D. – Fotbal 2010, Editura FRF, Bucureşti, 1999
2. CIOLCĂ, S.M. – Capacitatea de performanţă în fotbal, Editura Cartea Universitară, Bucureşti, 2005;
3. COJOCARU, V. – Strategia pregătirii juniorilor pentru fotbalul de înaltă performanţă. Bucureşti: Editura Axis Mundi, 2000
4. DRAGAN, A. – Optimizarea lecţiei de antrenament la disciplina fotbal, Editura Galaţi University Press, Galaţi, 2009;
5. NETA, GH. – Strategia performanţei în fotbal, Editura DACIA, Cluj-Napoca 2008
6 PLOEŞTEANU C. – Fotbal Antrenament / Competiţie, Editura Europlus, Galaţi, 2007.
7. ROVIDA, A. – Teoria e metodologia dell' allenamento, F.I.G.C. 2007.
8. SAVU, V.C. – Contributii cu privire la optimizarea capacitatii de performanta din perspectiva identificarii factorilor limitativi la juniori II in fotbal, Teza de doctorat, FEFS, Pitesti, 2011.
9. STĂNCULESCU, V. – Ghidul antrenorului profesionist de fotbal, Editura Transilvania Expres, Braşov, 1999.

APPROACHES TO THE STUDY MOTIVATIONAL FACTORS THE STUDENTS FOR SPORTS BASKETBALL GAME

Carmen RĂCHITĂ, Elena DRĂGĂNESCU
University of Medicine and Pharmacy "Carol Davila", Bucharest
carmenrachita@yahoo.com

Abstract:

The purpose of experimental research is to build an overall picture on reporting the sport of basketball game personality characteristics analyzed in relation to students' motivation for physical education and sport. Premise. The scientific approach is based on experimental research idea that by checking the motivational factors of students practicing basketball sport game can be determined and the implications of personality characteristics. Experiment samples with application to motor sports Basketball game were: assessing vehicle speed and technique under speed, speed endurance assessment (Little Marathon - 91 m), assessment of accuracy in free throws, game 5-5 all land. Experiment to test knowledge (self-knowledge) involve assessing personality structure: temperament, attitudes, skills and self-regulatory regulatory psycho-behavioral (cognitive, emotional and social). In experimental research students have appreciated the existence and intensity of mental qualities such as: 1. Combativeness, 2. Will, 3. Aggression, 4. Short-term memory (M.D.S.), 5. Attention, 6. Creativity, 7. Resistance 8. Discipline. Results: In all cases, t.calc. > T.tab, which shows that the null hypothesis (Ho) is rejected and the alternative hypothesis is accepted (H1) and that all the samples; finally, the results were improved students' sports. The physical preparation, technique and tactic works on mental sphere.

Key words: *Physical education, psycho-pedagogy, methodology.*

INTRODUCTION

This experimental research aims to improve understanding of the importance of sports practice in physical education lesson on modeling personality characteristics of medical students. "Basic form, working with classes, groups, teams, etc.. is the lesson that the organization remains the most flexible, because it meets the goals of structural mobility and adaptability to the requirements of the objectives, material conditions, levels etc. " (Dragnea Adrian, 1984).