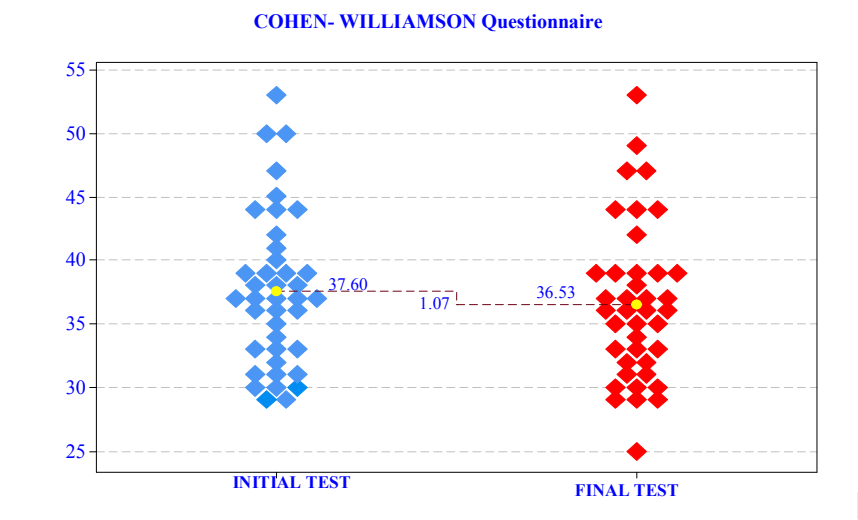
size indicators shows that the differences between the two means are very low. The statistical hypotesis check was made by ANOVA test, embossing a unsignificant difference between the means, P > 0.05. **Nule hypotesis is being accepted and the research hypotesis (alternative) is rejected.**

Grafic no.1



CONCLUSIONS

After data gathering it can be appreciated that, as a whole, the level of stress gathered is lower at the final testing (36.53 points) rather than the initial testing (37.30 points), representing a medium level of stress for both of the groups.

Taking into consideration that the Physical Education class from superior education is taken once a week, I consider the result satisfying. For satisfying results, practicing physical exercises, a few times a week, for a long period of time, is recommended.

Our duty, the teachers', is to explain why, what for and how to practice these forms of actioning, starting with understanding the immediate benefits and late ones.

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DEVELOPMENT EFFECTIVENESS SPECIFIC RESISTANCE EXERCISES ON THE OPTIMIZATION OF TECHNICAL FACTORS FROM JUNIOR FOOTBALLERS 17-18 YEARS

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Abstract

In his research the author started from the premise that the development of specific resistance will lead to optimize the competitive players. The material presented deals with the influence of applying the proposed training program for the development of specific resistance in the experimental group on indices of technical training.

The analysis indicates technical training of junior footballers 17-18 years found at the end of the pedagogical experiment have been significant advances in the experimental group compared to the control group if they had evidence besides the technical component and the "resistance", Drible the ball 5x30 m and Complex sample, the statistically average difference between the two groups ultimately proved to be reliable (P<0.01 or P<0.001).
Data from the present research confirms the hypothesis that the use of methods and exercises for developing specific resistance leads to optimization of technical training to juniors 17-18 years. The exercises used in training players experimental group were conducted in conditions of play, technical elements are practiced in soccer specific effort regime. We can not take tests used in research as the most relevant, but the results of this study can be a starting point for further research.
Key Words: *training, tehnical training, specific resistance, soccer, juniors 17-18 years.*

INTRODUCTION

In the literature, in terms of terminology, some authors (Dragnea and Mate-Teodorescu, 2002; Dumitrescu, 2006; Oancea, 2004) uses the term technical training, other authors (Motroc, 1994; Motroc, 1996; Nicu, 1993) uses the term technical factors, and other professionals (Colibaba and Bota, 1996; Manno, 1998) use technical term game, giving the following synonyms: tehnomotricity, technical-motor behavior, conduct technical, technical capacity or driving technique. Technical training are all activities for learning, strengthening and improving the playing technique.

Experts in the field (Colibaba and Bota, 1996; Constantinescu, Honceriu and Enache, 2004; Dragnea and Mate-Teodorescu, 2002; Manno, 1998; Motroc, 1994; Nicu, 1993; Oancea, 2004) believes that modern technology is characterized by the following features:

- Requires speed of thought and execution, technical skill speed mode;
- Spectacular, difficult, technical masked;
- It often takes on space and time is running low;
- All the techniques is performed tactical purposes;
- The variety and diversity of techniques;
- Effectiveness, usefulness and practicality executions;
- Precision, suppleness and smoothness executions;
- Subtlety, spontaneity and ease of execution of techniques;
- Perfection game developed sense without the ball and the ball.

In actual football, there is a tendency to simplify the technical actions, both in attack and in defense, effectively achieving a fluency in both phases of the game, combination of technical elements as high level of automation. In the game of football, priority technical influence tactics addressing situations under conditions of adversity and energy saving.

Acquiring a bag of skills and abilities to move and drive on the ball causes a higher demand sensory system (comparing internal and external information and reporting to the reports), which promotes learning and economic fair play football technique (Motroc, 1994).

METHODS

The research took place in two teams of juniors 17-18 years of Brasov, FC Brasov which formed the experimental group, or CSS Brasov - control group. Note that the control group had similar conditions in the experimental group training: a land of grass, licensed coach, without conditions and means of recovery, sports equipment, same old players.

The research was conducted in three phases, as follows:

1. In the first phase, from January 2009 - May 2010, making analysis of literary sources on sports training in general and especially the juniors 17-18 years, we have established research direction. We organized research experiment ascertaining physical parameters and techniques nationwide to juniors of 17-18 years.
2. The second phase, from May 2010 - April 2011 addressed prior experiment which aimed to assess the level of physical and technical training junior football teams belonging experiment, witnesses and other teams in the same echelon as compared to scales set by Romanian Football Federation U18 category. In this phase shift was made initial control samples and standards and evaluating performance junior footballers undergo initial research in official games. Also, this stage of the research program aimed at establishing basic pedagogical experiment.
3. The third stage was the completion of the experiment by passing tests and final control rules and competitive performance evaluation in the last official games. Basic pedagogical experiment was conducted according to the research compiled during the period February 2011 - May 2012. Subsequently, we processed and interpreted the data obtained in the course of research, we made the final conclusions and proposals aimed at optimizing game performance by developing specific resistance of 17-18 juniors.

Research was started from the assumption that the development of specific resistance training junior footballers 17-18 years will help optimize game performance. In this respect the experiment was oriented in two directions:

- check the efficiency of application exercises to develop specific resistance in optimizing physical and technical factor;
- check the efficiency of application exercises to develop specific resistance on competitive performance enhancer.

The experiment started in February 2011 by passing tests and initial control rules. We used samples and control rules (tests) for assessing the physical and technical training subject research teams. Note that these tests were established by the Romanian Football Federation.

RESULTS

In this paper we analyze the dynamics of technical indicators registered in the experimental group and control group at initial testing and final testing of our research. Thus, Table 1 shows the comparative analysis of test results technical preparation of athletes of control group and experimental group at the beginning and end of the experiment teaching.

Technical test that both components were subjected to the experimental group and the control group were: Drible the ball on 30 m, Drible the ball 5x30 m, Transmission distance ball and Complex sample.

Note that the initial and final tests in both groups were subjected to experiments performed under similar conditions on the ground, equipment and weather conditions. Outcomes from initial testing and final testing were processed with SPSS 15.0.1 (Statistical Product and Service Solutions).

In the initial testing for determining the level of technical training in both groups footballers can say that between groups were not significant differences in the results obtained, where "t" test varies between 0.73 and 1.967 and materiality is than 5% (P>0.05). This allows us to see that between research groups included in the technical preparation parameters are not accurate statistical differences in this respect both groups are homogeneous.

The following is a comparative analysis of the initial and final results of the experimental group and control group in tests of technical training.

Table 1. Comparative results for technical training in the experimental group and control group at initial testing and final testing

Probe control	Group of subjects	Initial testing			Final testing			t	P
		M ± SD	S	CV%	M ± SD	S	CV%		
Drible the ball 30 m	EG (n=20)	4,94±0,035	0,15	3,04%	4,84±0,037	0,16	3,38%	1,99	P>0,05
	CG (n=20)	5,03±0,034	0,15	2,98%	5,02±0,04	0,18	3,52%	0,78	P>0,05
t; P	EG-CG	1,967; P>0,05			3,55; P<0,001				
Drible the ball 5x30 m	EG	27,13±0,18	0,82	3,02%	26,1±0,17	0,79	3,03%	4,03	P<0,001
	CG	27,58±0,17	0,75	2,72%	27,7±0,19	0,85	3,07%	0,46	P>0,05
t; P	EG-CG	1,827; P>0,05			6,14; P<0,001				
Transmission ball at distance (m)	EG	67,46±1,31	5,88	8,71%	69,09±1,22	5,47	7,92%	0,9	P>0,05
	CG	66,31±0,85	3,8	5,73%	67,48±0,95	5,25	7,78%	0,92	P>0,05
t; P	EG-CG	0,73; P>0,05			1,036; P>0,05				
Complex sample (sec)	EG	7,18±0,042	0,21	2,92%	6,91±0,042	0,19	2,75%	3,79	P<0,01
	CG	7,3±0,057	0,25	3,42%	7,18±0,057	0,25	3,48%	1,45	P>0,05
t; P	EG-CG	1,33; P>0,05			3,794; P<0,01				

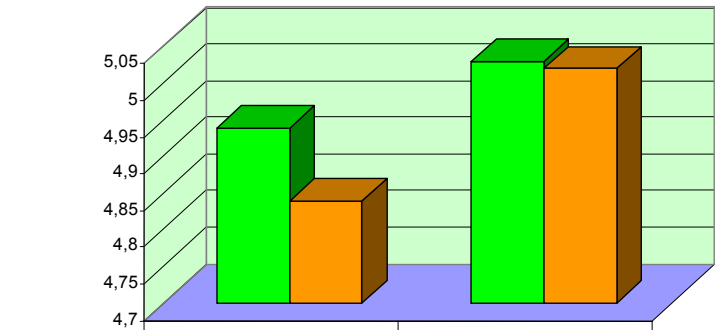
EG=experimental group, CG=control group, M=average, SD=standard deviation, S=standard error mean CV%=coefficient of variation, t=test Student, P=significance level, n=number of subjects, m=meters, sec=seconds

Note:

P		0,05	0,01	0,001
t	n=20	2,086	2,845	3,850
	n=40	2,021	2,704	3,551

DISCUTIONS

Analyzing test results recorded in Drible the ball on 30 meters, it is observed that the experimental group showed average values of the original 4"94, and the control group showed average values obtained in the initial tests 5"03. Variable "t" calculated (t = 1.967, P>0.05) in initial testing shows that this sample is not statistically significant differences between the two groups, which are homogeneous (Table 1, Figure 1). Comparing the results obtained from initial testing to final testing, we found that both the experimental group and the control group no significant differences (P> 0.05).



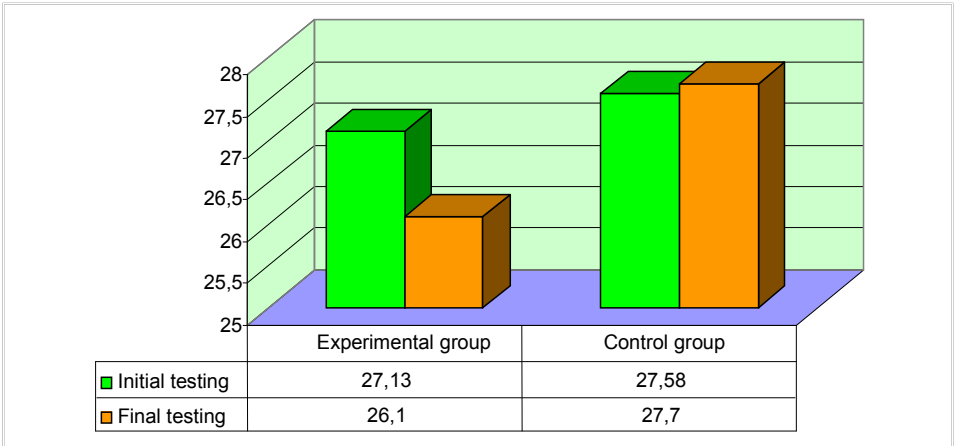
	Experimental group	Contol group
Initial testing	4,94	5,03
Final testing	4,84	5,02

Figure 1. Graphical representation of the results achieved in sample Dribling the ball on 30 m

Regarding progress in this test, the experimental group there is an improvement on the average by 0.1 seconds, 0.01 seconds respectively in control group. Low rates of progress shows that the ball on the 30 m sample management, where the main components are focused on technical execution speed under proposed program and applied to the experimental group to develop specific resistance did not lead to significant results.

Proven Drible teh ball 5x30 m players had to go in as soon as 30 m in distance running with successive blows applied to ball (have won at least 3 taps) players have gone five times the route, with a break of 25 seconds between repetitions during which they had to return to home, were recorded and the results recorded was the sum of the individual player.

If initial testing averaged values of the two groups under investigation were similar, i.e. 27.13 seconds and 27.58 seconds in the experimental group to the control group (P>0.05), the average final testing in the experimental group (26.1 seconds) was better than the final average control group (27.7 seconds, the value increased by 0.12 seconds from initial testing). The difference between the average final test in the experimental group and the control group is highly statistically significant (P <0.001) (Table 1, Figure 2).



	Experimental group	Control group
Initial testing	27,13	27,58
Final testing	26,1	27,7

Figure 2. Graphical representation of the results achieved in sample Drible the ball 5 x 30 m

The experimental group is highlighted progress by improving the average value recorded at final testing 1.03 seconds from baseline, while the control group saw a decline of 0.12 seconds. We can say that the experimental progress in this test is the effect of applying the proposed program of new pedagogical experiment. Among drives for resistance development within their curriculum are found ball exercises are practiced and technical elements specific football game, thus driving the ball under high intensity.

At sample Transmission ball at distance it appears that the final average results of the experimental group components - 67.46 m is greater than the final average results of the players included in the control group - 66.31 m, the difference between groups was not significant (P>0.05) note homogeneity of groups. Final testing is found slight improvements in both groups under investigation, but there were no significant differences statistically. Statistical and mathematical calculating and comparing the results obtained from the experimental group and the control group at final testing from baseline, argue these significant differences (P>0.05) (Table 1, Figure 3).

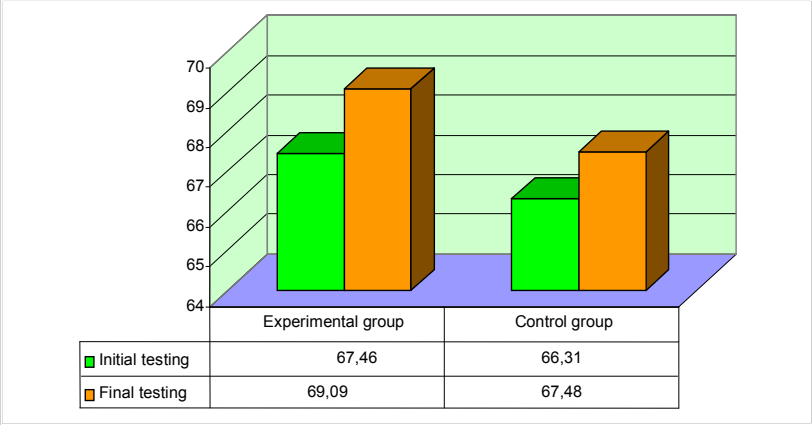


Figure 3. Graphical representation of the results achieved in sample Transmission ball at distance

Transmission ball at distance test sample degree of assimilation of techniques hit the ball with full lace and force-speed capability of the lower limbs, indices are not correlated with the development of specific resistance of 17-18 juniors.

Comparing progress to Complex sample arithmetic mean in Table 1 and Figure 4 is observed that the experimental group made final average values of 6.91 seconds, and the control group showed average values obtained in final testing 7.18 seconds. Variable "t" shows significant increases in values, being above the threshold of significance (t = 3.79, P<0.01) for the experimental group and below the materiality threshold (t = 1.455, P>0.05) for control group.

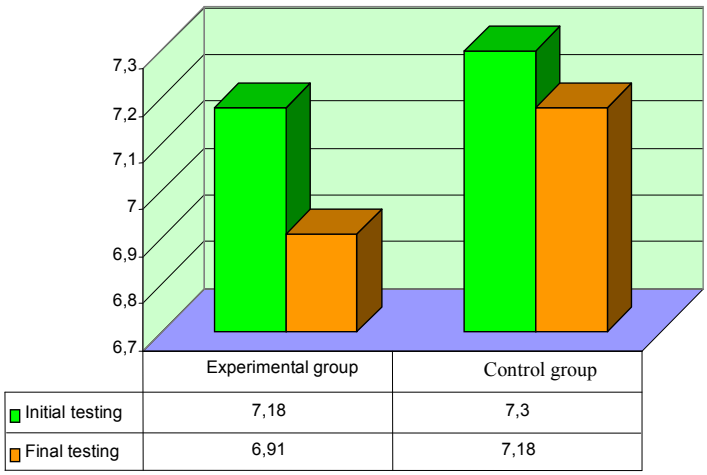


Figure 4. Graphical representation of the results achieved in Complex sample

Progress on this test, the experimental group there is an improvement in the average level of 0.27 seconds, 0.12 seconds in the control group respectively. The rate of progress in the experimental group, two times higher than the control group performed, show that this test, in which the main components are focused on driving the ball through cones, pulled at the gate fast return at home and resumption path another 5 times with breaks of 10 seconds between repetitions, all made in speed and insufficient time for full recovery to resume the effort, the results are relevant and demonstrate the effectiveness of the proposed program and applied sports training to junior footballers of 17-18 years undergoing research.

CONCLUSIONS

In conclusion, the analysis indicates technical training of junior footballers 17-18 years found at the end of the pedagogical experiment have been significant advances in the experimental group compared to the control group if they had evidence besides the technical component and the "resistance". Technical evidence that there are significant differences ball 5x30 m and sample management complex, the statistically average difference between the two groups ultimately proved to be reliable ($P<0.01$ or $P<0.001$).

Comparing the differences between environments with proven results 17-18 junior footballers from control group and the experimental group, it highlights the best progress in the experimental group, especially in technical tests that determine the quality of driving resistance development due to the proposed methodology and applied in athletic training components of the experimental group.

The exercises used in training players experimental group were conducted in conditions of play, technical elements are practiced in soccer specific effort regime. Data from the present research confirms the hypothesis that the use of methods and exercises for developing specific resistance leads to optimization of technical training to juniors 17-18 years.

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AUXILIARY EQUIPMENT FOR PREPARING SKILLED RUGBY PLAYERS

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Abstract

Physical Preparation rugby game is sporting decisive factor dispute a match or sporting confrontations. A relatively new trend in physical training, including sports games, is the application of devices supporting that in recent years increasingly used at all stages of sports training. This paper presents the results of the physical performance of rugby players in the supporting apparatus applying their training.

Key words: *rugby, players, equipment.*

One of the key moments in training of rugby players of any level, is the application of the correct methodological means all specific to increase their level of sports training [Badea D., 2003; Constantin V., 2002; Joubert R., Groenewald B., 1998; MC Gratli D, 1995; Холодов Ж.К., Варакин Б.А. Петренчук В.К., 1984].

The motric exercises in any sport trial, including sports games, is the decisive sports factor in a played match or sporting confrontations. This refers