

Variables		Group „A” r	Group” B” r
Upper limbs	Height x throwing at basket from dribbling	-0,07	-0,22
	Arm length x throwing at basket from dribbling	-0,27	-0,01
	Forearm length x throwing at basket from dribbling	-0,15	-0,28
Lower limbs	Hand length x throwing at basket from dribbling	-0,18	-0,12
	Thighs (hips-knees)x throwing at basket from dribbling	-0,15	-0,13
	Shank (knees, ankle)x throwing at basket from dribbling	-0,24	-0,05

CONCLUSION

1. The values obtained by statistical calculations indicate that there is no significant relationship between the longitudinal anthropometric variables proposed for study and the execution of the technique of dribble slam dunk for any of the groups of research.
2. The longitudinal anthropometric variables did not influence the execution by the students of the procedure dribble slam dunk at the final evaluation of the basic course in the field of basketball.
3. The data obtained invalidated the hypothesis of the study which shows that the evaluation was unbiased and focused on the observable component of students' training, namely the execution from technical and performance point of view (number of successful throws).
4. We believe that when the final assessment of students' practical works is carried out, we should eliminate the factors related to their biometric qualities (height, weight, age) previous experience, presence of motivation, to focus attention on the quality and quantity of accumulated knowledge, not on the details.

REFERENCES

- Berceanu, D., Moanță, D., & colab. (2007). *Concepția unitară de joc și pregătire pe nivele formative- Printech, București, p.43-60*
- Dean, O. (2004) *Basketball on paper: Rules and tools for Pperformance analysis, US, Brassey's, Inc.*
<http://www.sfandllaw.com/CM/Articles/Articles10.asp>
- Dominic, O.L.(2006). *The relationship between physical characteristics and shooting ability of Kwara State basketball players-Journal of Education Research and Development Vol.1 (2):167-172.*
- Dragnea, A., & Mate-Teodorescu, S. (2002). *Teoria Sportului- București: Fest, p. 115-116*
- Miller S., Bartlett R. (1996).*The relationship between basketball shootingkinematics, distance and playing position, Journal of Sports Sciences, 14, 243-253*
- Predescu, T., & Moanță A.D.(2001) *Baschetul în școală - instruire și învățare -București: Semne, p. 13-21.*
- Sisodiya, A.S., & Yadav, M. (2010). *Relationship Of Anthropometric Variables To Basketball Playing Ability, Journal of Advances in Developmental Research 1 (2) 2010 : 191-194*
<http://www.usablestats.com/calcs/2samplert>

EXPERIMENTAL STUDY ON SPEED DEVELOPEMENT IN CHILDREN OF 14-15 YEARS, PRACTICING THE FOOTBALL GAME

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Abstract

The purpose of this study is to study the efficiency of speed development in children of 14-15 years, practicing the football game.

Also, the intention was to develop and conduct an experiment that would provide information about the manner of speed development, about its role and importance in the entire training program applied in football for the category of 14-15 years.

Another purpose was to critically establish the capacity level after conducting the experiment, in order to demonstrate the efficiency of the means and tryouts used in the training process.

In order to analyze the so called competitive performance potential, the quality of the training process must be improved by assuring, at the right time, the volume, intensity and complexity parameters and applying the methodical experience in practice.

At this moment, the experts in our field of work are carefully turning their attention towards the yet unexploited resources of football. One of these resources, still unmined, is the training method, respectively presented in this paper, the experimentation of speed development in children of 14-15 years, practicing the football game.

Key words: training, experiment, football, juniors, speed

INTRODUCTION

Our purpose is to demonstrate the utility and the need to develop a study regarding the speed development in children of 14-15 years, practicing the football game.

A good level of motor quality, speed is imperative for the learning, strengthening and improving the technical-tactical procedures needed by those who practice this sport. Knowing the most efficient means to develop the practice speed in maximal tempos helps increasing the efficiency and their use assures me of knowledge for the coach-professor position, as well as my instruction in what regards the issues performance football rises.

Also, one of the main reasons for developing this study is the use of some work instruments needed for the development of the different forms of speed manifestations specific to the football game.

Knowing the methodical problems of training children practicing the football game will be useful in making a model of the player ready to take on the requirements of the modern football and also in the multiple specialization of players on different positions in order to know the game actions in speed and high speed.

The main hypothesis of the paper are:

- a) By using a set of methods and means which we developed, a significant improvement of the speed development parameters will be obtained
- b) At the same time with the speed improvement, better results in competitions will be obtained

After the calculations made on the main motor parameters obtained in the two tests, through statistical-mathematical processing, a series of statistical marks have resulted, as presented in the following charts.

THE STUDY'S PURPOSE

Table no. 1. Final results obtained in the control tryouts by the subjects in the experimental group (C.S.S. no.1 Pajura)

NO.	NAME	SPEED 10M	SPEED 30M	SPEED 50M	SPEED 60M	LONG JUMP OFF PLACE	RUNNING FOR 10 M WITH THE BALL AT FOOT	RUNNING FOR 30 M WITH THE BALL AT FOOT
1	V. I.	1,80	4,52	7,20	8,04	2,30	1,84	5,42
2	B. C.	1,90	4,70	7,39	8,65	2,10	1,85	5,91
3	R. A.	1,75	4,61	6,90	8,12	2,30	1,77	5,10
4	S. C.	1,70	4,40	6,40	8,02	2,20	1,75	5,00
5	C. S.	1,78	4,42	6,91	8,20	2,22	2,80	4,92
6	B. C.	1,75	4,45	6,60	8,05	2,25	1,98	6,00
7	S. A.	1,91	4,60	6,97	8,07	2,30	2,00	5,86
8	B. T.	1,94	4,91	7,08	8,93	2,10	2,10	6,14
9	D. A.	1,80	4,33	6,80	8,08	2,20	1,82	5,72
10	M. N.	1,80	4,43	7,02	8,87	2,15	1,84	4,91
11	B. A.	1,82	4,71	7,12	8,48	2,20	1,84	5,24
12	C. G.	1,79	4,90	6,87	9,01	2,15	1,80	5,16
13	S. M.	1,78	4,80	7,20	9,23	2,12	1,99	4,82
14	G.M.	1,90	4,50	7,30	9,30	2,10	1,92	4,76
15	A.C.	1,80	4,42	6,44	8,22	2,25	1,80	4,94
16	B. E.	1,85	4,50	7,30	8,39	2,10	1,87	6,15
17	S.Ş.	1,91	4,56	7,37	8,40	2,17	1,94	5,82
18	C.G.	1,74	4,34	6,42	8,08	2,25	1,79	4,84

19	N.L.	1,90	4,51	7,00	8,32	2,20	1,92	5,72
20	G.C.	1,73	4,39	6,51	8,12	2,30	1,80	4,97
ARITHMETIC MEAN		1.79	4.51	6.94	8.43	2.01	1.84	5.21
STANDARD DEVIATION		0,07	0,17	0,32	0,42	0,07	0,22	0,49
AVERAGE DEVIATION		0,05	0,13	0,26	0,34	0,05	0,12	0,44
VARIABILITY COEFFICIENT		3,89	3,82	4,65	4,99	3,30	11,76	9,12

Table no. 2. Final results obtained in the control tryouts by the subjects in the control group (Sportul Studentesc)

NO.	NAME	SPEED 10M	SPEED 30M	SPEED 50M	SPEED 60M	LONG JUMP OFF PLACE	RUNNING FOR 10 M WITH THE BALL AT FOOT	RUNNING FOR 30 M WITH THE BALL AT FOOT
1	B.B.	1,82	4,56	6,80	8,19	2,25	1,88	5,27
2	C.F.	1,79	4,52	7,00	8,75	2,30	1,84	5,00
3	Ț.R.	1,80	4,33	7,02	8,15	2,22	1,85	5,55
4	P.A.	1,74	4,42	6,72	8,10	2,30	1,80	5,10
5	A.M.	1,78	4,52	7,07	8,20	2,22	1,85	4,90
6	V.I.	1,74	4,80	6,98	8,60	2,25	1,81	5,15
7	P.D.	1,79	4,92	6,80	8,47	2,27	1,88	5,32
8	S.I.	1,87	4,77	7,00	9,00	2,15	1,93	5,84
9	R.C.	1,80	4,72	6,97	9,02	2,20	1,86	5,62
10	S.C.	1,78	4,52	6,60	8,20	2,17	1,83	5,15
11	E.I.	1,70	4,40	6,40	8,00	2,27	1,73	4,84
12	T.V.	1,82	4,53	7,08	8,77	2,20	1,86	4,92
13	O.D.	1,88	4,70	7,90	8,79	2,18	1,91	5,37
14	M.G.	1,74	4,62	7,28	8,84	2,28	1,77	5,02
15	T.I.	1,77	4,92	7,30	8,20	2,30	1,82	5,42
16	V.D.	1,81	4,76	7,28	8,65	2,15	1,85	5,28
17	Z.C.	1,80	4,48	7,32	8,26	2,20	1,83	4,91
18	N.D.	1,79	4,67	7,28	9,00	2,22	1,86	5,16
19	M.C.	1,73	4,50	6,90	8,40	2,28	1,80	5,10
20	B.A.	1,89	4,62	6,90	9,00	2,25	1,93	5,22
ARITHMETIC MEAN		1.86	4.59	7.03	8.49	2.03	1.92	5.37
STANDARD DEVIATION		0,04	0,16	0,31	0,35	0,04	0,04	0,26
AVERAGE DEVIATION		0,03	0,13	0,22	0,31	0,04	0,03	0,20
VARIABILITY COEFFICIENT		2,76	3,58	4,53	4,11	2,19	2,69	5,08

The variability coefficient has shown a uniformity of the two groups in the experiment for both tests.

The arithmetic means will be presented as follows in tables, and the charts accompanying the tests complete the image of the results' evolution.

The following notations:

T₁ – initial testing;
 T₂ – intermediate testing;

TABLE no. 3. The arithmetic means in test P1 - Running for 10 m with standing start

P1	T ₁ (s)	T ₂ (s)
Experimental group	1.90	1.79
Control group	1.92	1.86

CHART no. 1. The evolution of the average values in the two tests – test P2

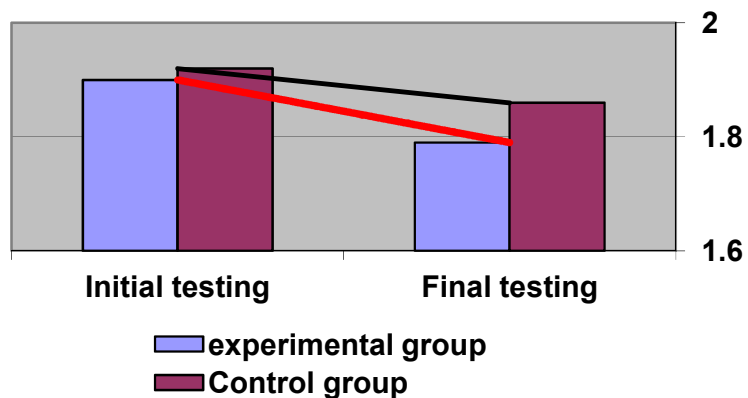


TABLE no. 4. The arithmetic means in test P2 - Running for 30 m with standing start

P 2	T ₁ (s)	T ₂ (s)
Experimental group	4.65	4.51
Control group	4.66	4.59

Chart no. 2. The evolution of the average values in the two tests – test P2

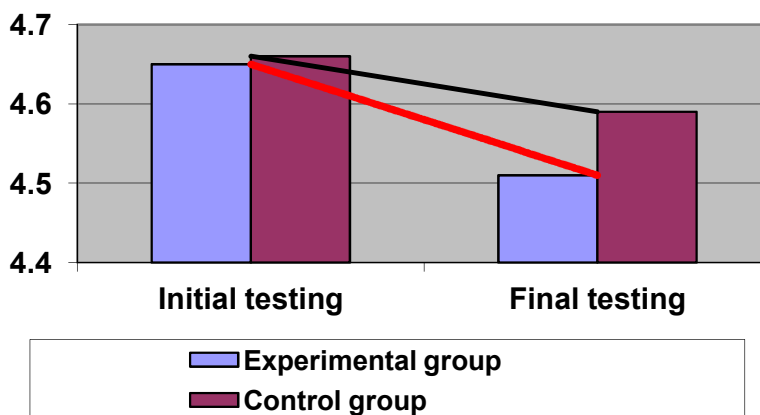
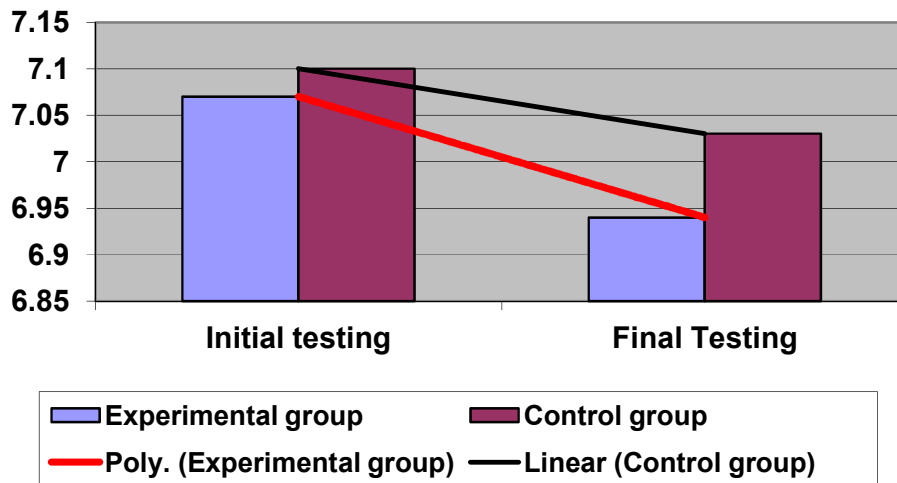


TABLE no. 5. The arithmetic means in test P 3 - Running for 50 m with standing start

P 3	T ₁ (s)	T ₂ (s)
Experimental group	7.07	6.94

Control group	7.10	7.03
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CHART no. 3. The evolution of the average values in the two tests – test P3



Even if the two experiment groups have obtained, in the initial testing, similar results, in the final testing, the experimental group has detached itself from the control group through better results, fact that demonstrates the difference of training between the two groups.

After applying the test t (Student) we could state with a 95% rate of precision (the significance threshold = 0,05, accepted in physical education and sports) that the progress achieved by the experimental group is due to the independent variable (select/developed means and methods), fact that confirms the study's hypothesis.

The applied research, regarding speed, allows us to conclude that, the improvements noted in the experimental group have been based on superior parameters of manifestation of the experimental training, thus validating the study's hypothesis.

CONCLUSIONS

➤ Overall, the experimental application of the methodology to training for speed of the children of 14-15 years, practicing the football game, through an elaborate complex of means of training for speed, has determined a higher efficiency of the actions carried out in the experimental context.

➤ The implementation of the experimental program has determined changes in the parameters of the research, at the level of speed indicators, through significant improvements noted in the experimental group, thus validating the study's hypothesis that says that by using a set of means and methods developed by us, a significant improvement of the speed indicators will be obtained.

➤ The applied methodology has proven its efficiency, fact confirmed through the experimental step that resulted with the development of speed at a high level of quality. The exercise system used has led to the improvement of speed, aspect revealed by all control tests, through the difference between the initial and final average values. During the experiment, the level of training for speed has significantly improved in the experimental group compared to the control group, thus confirming the study's hypothesis and the methodology for handling the experimental variables.

SUGGESTIONS

Based on the final conclusions and discussions between the professors from the Football Department, I suggest the following:

➤ To increase the number of hours of physical education for the grades V to XII in order to improve the level of the students' physical training.

➤ To edit teaching materials containing the latest news from the World Championships, European Championships, etc.

➤ To use, during selections, in addition to tryouts and standards, some perspicacity – intelligence tests in order to obtain more information about the subjects

➤ To develop a syllabus for the Sports School Clubs, by the Ministry of Education in collaboration with the Romanian Football Federation and the National Academy of Physical Education and Sport.

REFERENCES

- COMUCCI, Nicola și VIANI, Marco – *Manualul antrenorului de fotbal*. Bucharest, C.N.E.F.S., 1988.
- DIMA, Marius – *Pregătirea fizică a fotbalistilor*. Bucharest, Bren Publishing, 2007.
- DIMA, Marius; *Curs de baza - fotbal*, Bren Editting, 2009
- RĂDULESCU, Mircea; COJOCARU, Viorel - *Ghidul antrenorului de fotbal – copii și juniori*. Bucharest, Axis Mundi Publishing, 2003.
- RĂDULESCU, Mircea, DIMA, Marius *FOTBAL „PRO” probleme ale antrenorului profesionist*. Didactic and Pedagogic Publishing, 2009

IMPROVING WORKING METHODOLOGY IN THE HOURS OF TRAINING ON JUNIOR FOOTBALLERS

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Abstract

The experimental group (12 players) has undergone a special training program, with specific means and methods of training.

The players in the experimental group have participated in 4,5 practice sessions per week and have been selected being considered beneficiaries of the administered training program, program which aimed to improve the technical, tactical and physical level.

The research has been done in three stages, as follows:

- *Stage I in which the domain's literature and papers related to the research have been studied*
- *Stage II (August 2012 – April 2013) was related to organizing and conducting the experiment done on 12 players between the ages 14 and 15 years, "MIRCEA ELIADE" HIGHSCHOOL BUCHAREST (experimental group) and 12 juniors (control group), part of the team CSS NO. 1 PAJURA.*
- *Stage III consisted in processing, analysis and interpretation in terms of statistics of the results, drafting conclusions and practical recommendations.*

Throughout the basic experiment, the subjects in the experimental group have worked following the program developed by us, and the control group has worked following the plan done by the team's coach.

The training program was applied between August 2012, when the initial test took place (IT), and ended in May 2013, with the final test (FT).

Key words: *training, experiment, football, juniors.*

INTRODUCTION

Due to the current complexity of the football game and the continuing evolution towards a complete commitment during the matches, the children's training becomes a basic condition to achieve the final purposes of the game. The juniors' sports training will be mostly concerned with improving and perfecting each game element separately, while the game itself will serve mainly as means of combining these elements in the most precise proportions possible. The coach must aim to form a player that could think, namely to be able to adapt very well to the different situations verified in a competition.

THE PAPER'S HYPOTHESIS

We assume that if a workout program that takes into account the peculiarities of age and aims to develop basic technique and tactics of football players aged 14-15 years is given, it will

significantly improve the technical level of the players.

The paper's purpose

The study aims to improve the work methodology, during the training hours for the junior groups.

As a result of studying the materials in the field regarding the training of the football teams at the level for juniors aged 14-15 years, as well as the methods of training in this discipline, we aim to develop a model of training for the junior football team, 14-15 years, "MIRCEA ELIADE" HIGHSCHOOL BUCHAREST.

SUBJECTS, TIME AND PLACE.

The subjects that underwent the tests are a part of the "MIRCEA ELIADE" HIGHSCHOOL BUCHAREST's football team. The experimental group, the one that underwent the investigations, consisted of 12 players. The experiment took place between August 2012 and May 2013, on the football field and the gym of the "MIRCEA