

# AN EVALUATION OF THE EFFECTS THAT FOOTBALL SPECIFIC METHODS AND TESTS HAVE ON THE SKILL DEVELOPMENT CASE STUDY IN 10-12 -YEAR-OLD CHILDREN

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**ABSTRACT.** Over time, the sport team's game philosophy has evolved according to the new requirements of the game. In the overall evolution of the game and its elements, in the course of the permanent changes of orientation and accent, the physical training was an element of progress for the other factors of the training. Physical training sums up strength, speed, skill and mobility.

**Keywords:** *means, methods, skill, abilities, technique*

**REZUMAT.** *Evaluarea îndemânării în jocul de fotbal prin teste specifice la jucătorii în vârstă de 10-12 ani – studiu de caz.* Concepția de joc a echipelor evoluat de-a lungul timpului în funcție de noile cerințe ale jocului. În ansamblul evoluției factorilor de joc, a jocului însuși, în cadrul permanentelor schimbări de orientare și accent, pregătirea fizică a reprezentat un element de progres pentru ceilalți factori ai antrenamentului. Un element de structură foarte important al pregătirii fizice este reprezentat de calitățile motrice: forța, viteza, rezistența, îndemânarea și mobilitatea.

**Cuvinte-cheie:** *mijloace, metode, îndemânare, abilități, tehnică*

## Introduction

Among these elements, this paper aims to analyze the skill generally, but also is focusing on the football game. The paper's area of interest belongs to the generic concerns of overall optimizing the lesson of physical education, especially the development of motor skills. The efficiency of some drives for skill development gives the practical value of the paper and highlights the effectiveness of them in the physical education lesson.

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## Hypothesis

Starting from the premise that motor skills development approached by the modern methods and specific means of the football game can lead to an efficiency increase in the instructive-educational process, confirmed by greater manifestation indices of the motoring qualities. An experimental study must confirm or invalidate the fact that students who systematically practice football in physical education classes, extracurricular activities and school sports competitions have higher morpho-functional developmental indices and better physical and motor development. The aim of the paper is to develop the specific driving skill in the football game during the class of physical education and sport at the 5th grade.

## Objectives

- Carrying out a theoretical analysis of the motor skills: skill and specific aspects of skill in football game.
- Developing drive systems designed to increase skill specific to football game.
- Practical reasoning of the skill development of: skill.

## Means and methods

1. Study of bibliography, observation method, experimental study, graphic method

**Experiment:** Subjects who participated in this research were 20 pupils of the fifth grade in the school year 2015-2016 at the secondary school Ion Creangă in Cluj-Napoca. The 20 subjects were then distributed in two groups, one being the experimental group and the other the control group.

**Table 1.** Results of Experimental Group Test-I Test Applicants (Initial Testing)

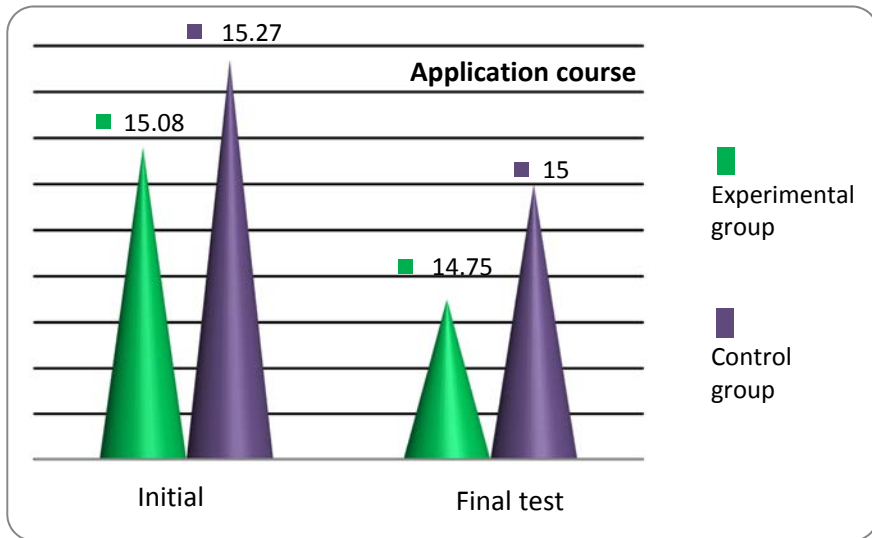
No.	First name and last name	Test result (seconds)
1.	A.E.	16,4
2.	B.C.	16,8
3.	B.S.	14,4
4.	B.B.	13,8
5.	B.D.	14,9
6.	C.G.	14,1
7.	C.C.	15,3
8.	C.P.	16,2
9.	F.T.	14,3
10.	G.E.	14,6

**Table 2.** Results of Witness Test Subjects on Test I- Applicable Route (Initial Testing)

No.	Name and surname	Test result (seconds)
1.	M.D.	14,5
2.	M.R.A.	15,3
3.	N.D.	14,8
4.	M.R.	13,9
5.	M.I.	16,5
6.	P.A.	15,7
7.	R.S.	15,8
8.	S.F.	13,8
9.	S.A.	16,1
10.	U.R.	16,3

**Table 3.** Statistical Tables in Test I (Initial Testing)

Application course								
Group	X	S	m	Cv	Student		ANOVA	
					t	P	F	P
Experimental	15.08	3.312	1.047	21.962	0.137	>0.05	1.563	>0.05
Control	15.27	2.86	0.904	18.729				



**Figure 1.** Application course - Average values for the two tests

**Table 4.** Results of Experimental Group on Test I-Application Run (Final Test)

No.	First name and last name	Test result (seconds)
1.	A.E.	16,1
2.	B.C.	16,5
3.	B.S.	14,1
4.	B.B.	13,2
5.	B.D.	14,7
6.	C.G.	13,8
7.	C.C.	15,1
8.	C.P.	15,9
9.	F.T.	13,8
10.	G.E.	14,3

**Table 5.** Results of Test Group 2 Test Subjects - Application Course (Final Test)

No.	First name and last name	Test results (seconds)
1.	M.D.	14,2
2.	M.R.A.	15,1
3.	N.D.	14,6
4.	M.R.	13,6
5.	M.I.	16,3
6.	P.A.	15,4
7.	R.S.	15,5
8.	S.F.	13,4
9.	S.A.	16,1
10.	U.R.	15,8

**Table 6.** Statistical Tables in Test I (Initial-Final Test)

Application course											
Group		X	S	m	Cv	Student initial		Student final		ANOVA	
						t	P	t	P	F	P
Experi- mental	Initial test	15.08	3.312	1.047	1.962	2.816	<0.05	3.231	<0.05	5.258	<0.05
	Final test	14.75	3.675	1.162	24.91						
Control	Initial test	15.27	2.86	0.904	18.729	1.869	>0.05	3.231	<0.05	5.258	<0.05
	Final test	15	3.093	0.978	0.62						

The average values indicate a few seconds improvement of the values recorded between the tests at both groups, significant improvement only for the experimental group:

Experiment group:  $t(9)=6.353 > 2.262$

Control group:  $t(9)=2.143 < 2.262$

Homogeneity improves in both groups, more significant in the control group;

The significant differences between the two groups from the final testing are highlighted by the values of t and F:

$$T(18) = 3.231 > 2.1009$$
$$F(1,18) = 5.258 > 4.413$$

**Analytical Graphical Representation - Applicative Course  
(shows the difference between the two tests held in October and May)**

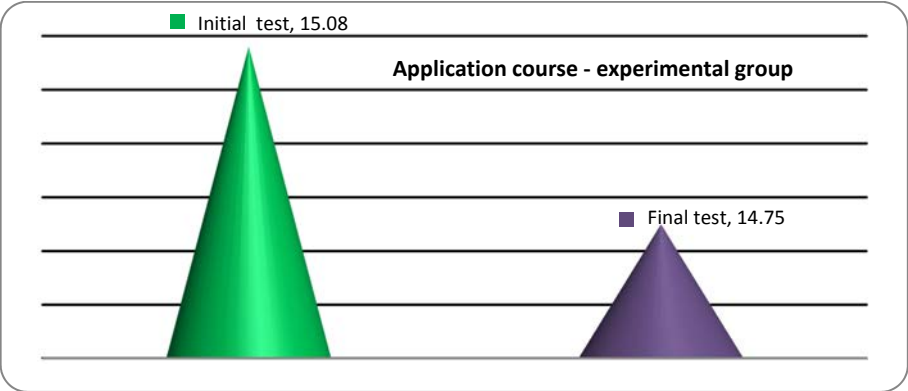


Figure 2. Application-experiment group-average values for the two tests

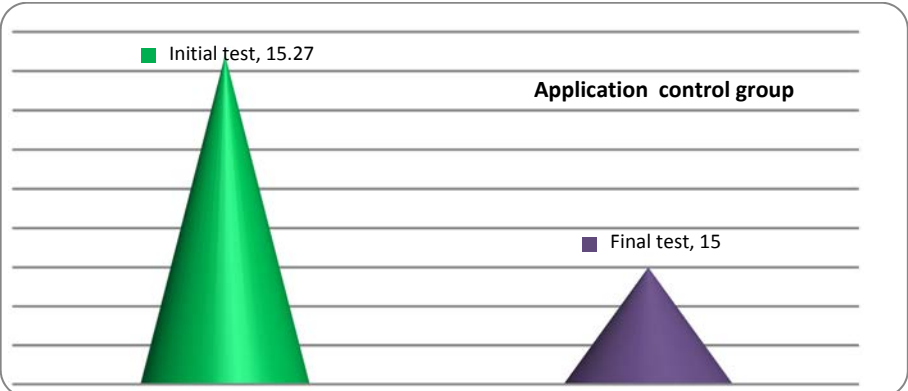


Figure 3. Application run-control group-average values for the two tests

**Table 7.** Nominal Table with Results of Experimental Group II Tests -  
Foot kick on Vertical Target (Initial Test)

No.	First name and last name	Test results (points)
1.	A.E.	8
2.	B.C.	7
3.	B.S.	12
4.	B.B.	7
5.	B.D.	6
6.	C.G.	8
7.	C.C.	9
8.	C.P.	6
9.	F.T.	8
10.	G.E.	9

**Table 8.** Nominal Table with Results of Control Group on Test Group III -  
Foot kick on Vertical Target (Initial Test)

No.	First name and last name	Test results (points)
1.	M.D.	5
2.	M.R.A.	8
3.	N.D.	7
4.	M.R.	12
5.	M.I.	6
6.	P.A.	6
7.	R.S.	8
8.	S.F.	13
9.	S.A.	8
10.	U.R.	11

**Table 9.** Statistical indices on Second Test (Initial Test)

Foot kick on Vertical Target								
Group	X	S	m	Cv	Student		ANOVA	
					t	P	F	
Experimental	8	9.33	2.95	11.66	0.063	>0.05	1.243	>0.05
Control	8.4	17.46	5.52	20.78				

It can be observed that arithmetic mean values of the results obtained by the two groups are very close, with differences between 0.19 and 2.5 points. Moreover, it is observed a very good homogeneity, with better results of the variation coefficient between the two tests in the case of the control group.

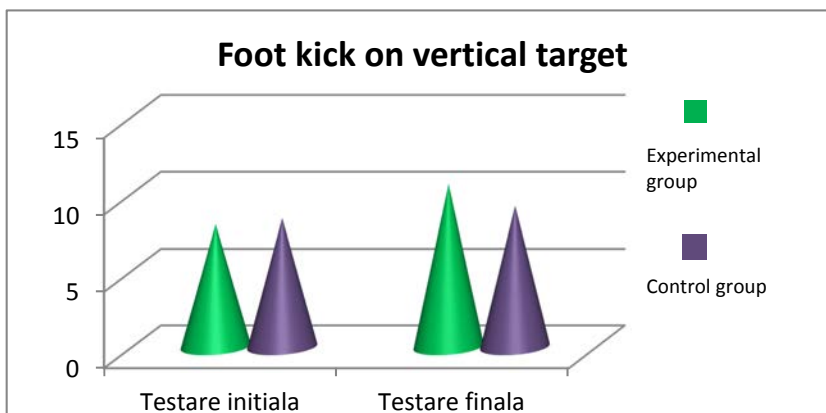
The significance tests have provided values for  $t$  and  $F$  far below their reference ( $t=2.1009$  and  $F=4.4138$ ), strengthening the assumption that there are no significant differences between the two groups.

**Table 10.** Nominal Table with Results of Experimental Group II Test Subjects - Foot kick on Vertical Target (Final Test)

No.	First name and last name	Test results (points)
1.	A.E.	11
2.	B.C.	9
3.	B.S.	13
4.	B.B.	10
5.	B.D.	9
6.	C.G.	11
7.	C.C.	12
8.	C.P.	9
9.	F.T.	11
10.	G.E.	11

**Table 11.** Nominal Table with Results of Control Group II Test Subjects - Foot kick on Vertical Target (Final Test)

No.	First name and last name	Test results (points)
1.	M.D.	6
2.	M.R.A.	9
3.	N.D.	9
4.	M.R.	12
5.	M.I.	7
6.	P.A.	8
7.	R.S.	8
8.	S.F.	14
9.	S.A.	8
10.	U.R.	12



**Figure 4.** Foot kick on target – mean values for the two tests

**Table 12.** Statistical indices on test III (initial-final)

Foot kick on vertical target											
Group		X	S	m	Cv	initial-final		final		ANOVA	
						t	P	t	P	F	P
Experimental	Initial test	8	9.33	2.95	11.66	2.745	<0.05	3.253	<0.05	5.989	<0.05
	Final test	10.6	5.466	1.728	5.156						
Control	Initial test	8.4	17.46	5.52	20.78	2.324	<0.05	3.253	<0.05	5.989	<0.05
	Final test	9.2	12.5666	3.973	13.586						

Arithmetic mean shows an increase in both groups between tests (2.6 points in the experimental group and 0.8 points in the control group), significant for both groups:

Intervention group:  $t(9)=2.745 > 2.262$

Control group:  $t(9)=2.324 > 2.262$

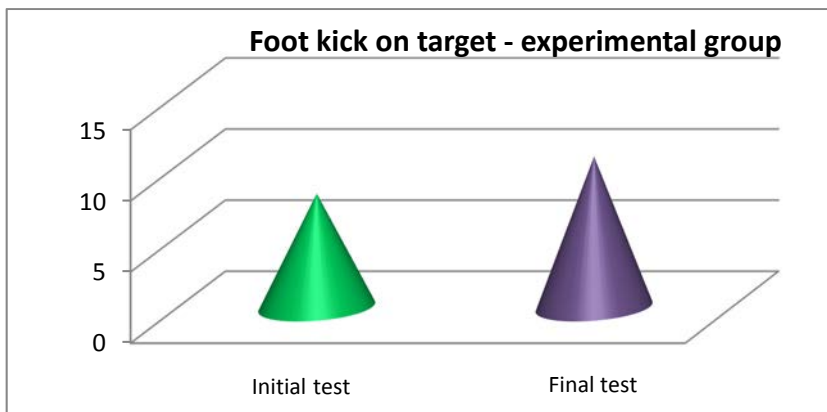
Homogeneity shows an improvement in both groups of 6 and 7 percentage points respectively.

**The significant differences between the two groups are evidenced by the two tests, meaning:**

$$t(18)=3.253 > 2.1009$$

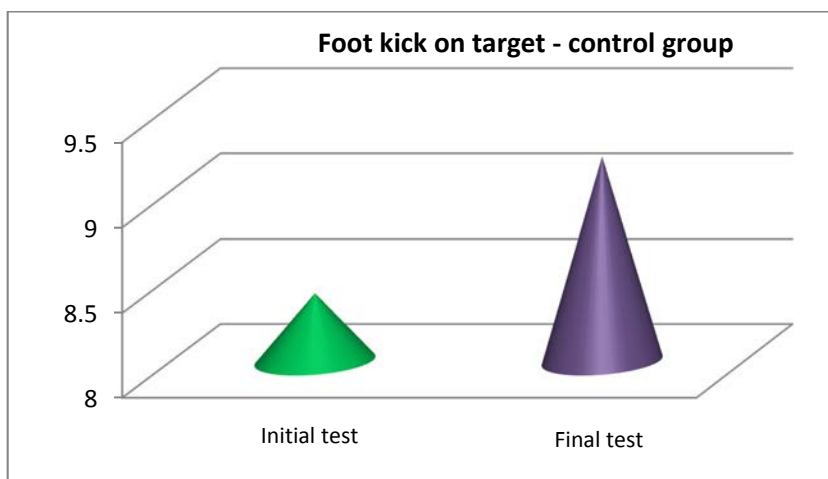
$$F(1,18)=5.989 > 4.413$$

**Analytical Graphic Representation – Foot Kick on Target (Shows the Difference of the Results between the Two Tests October-May)**



**Figure 5.** Foot kick on target - experimental group – mean values for the two tests





**Figure 6.** Foot kick on target - control group – mean values for the two tests

### Conclusion and suggestions

Following the elaboration and systematization of the materials presented in this paper, the authors reached out to the next conclusions:

- Starting from the fact that football is a means of physical education, it is considered that within the physical education classes the age-appropriate football exercises can be used to achieve the goals of better motor skills and abilities.
  - By applying the tests, it was found an increase in general physical development indices.
  - Due to the morpho-functional particularities of the 10-12 year old students referred to in the present paper, it can be said that our proposal is an appropriate one for the development of motor abilities and especially of the skill.
  - The somatic development level determines the necessary time period for the acquisition of the technical procedures that contribute to the development of the skill.
  - After viewing the tables and graphs, it is observed an increase in the values obtained by the two test groups between the initial and the final testing.
  - The progress of the experimental group compared to the control group is significant, allowing the authors to say that for the optimization of skill, the specific means of football can successfully replace the classic ones.

- By raising the fitness level of the two groups of students included in the proposed experiment, the authors consider that the research objectives have been achieved, the efficiency of the applied methodological system has been demonstrated.

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