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STUDY REGARDING LEARNING THE FOOTBALL GAME TECHNICAL PROCEDURES AT PRIMARY STUDENTS

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ABSTRACT. In the methodology of sports games, it is stipulated that the teaching of any technical procedure is based on some models, these models as the result of many biomechanical studies that refer not only to the main procedure, but also to all details specific to different styles. **Hypothesis.** In the case of some primary school students, are increase of their technical level, can be motived. This has been possible because the methods are carefully selected and suitable for their age. **Methods and means**. The subjects of this research are students from Elementary School, Gâlgău Almaşului, Sălaj County, the research lasts from 2021-2022. 15 students has been involved: 9 from the third form and 6 from the 4th. At the beginning of the study, their technical abilities have been tested: kicking-precision frequency, the ability of keeping the ball in the air as much as possible, dribbling through obstacles. Data processing used statistical tests like: accepted standard deviation, variability coefficient, the T test. **Results.** The frequency of kicking precision the 3 rd form – 7.11 – (T.I) executions and 8.44 (T.F) executions, all the 4th form 7.50 T.I executions and 9.66 executions T.F. **Conclusions.** The results obtained shows that the selected methods lead to the technical improvement of in football game. A key factor represents a well knowing of the students' training level and the methodology.

Key words: *sports, students, technical abilities, procedure*

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REZUMAT. Metodica jocurilor sportive, precizează că învăţarea oricărui procedeu tehnic se realizează pe baza unor modele stabilite de specialişti, în urma unor numeroase şi aprofundate studii biomecanice, care se referă, în principal, la mecanismul de bază al procedeului, dar şi la detaliile de execuţie specifice diferitelor stiluri. **Ipoteze.** Se poate constata o creştere a nivelului tehnicităţii elevilor ciclului primar prin utilizarea unui ansamblu de mijloace bine selecţionate şi adaptate la particularităţile lor de vârstă şi pregătire. **Metode şi mijloace**. Activitatea de cercetare s-a desfăşurat la Şcoala Gimnazială Gâlgău Almaşului, judeţul Sălaj, în anul şcolar 2021-2022. Pentru realizarea acesteia au participat la acest studiu 15 elevi: 9 din clasa a III-a si 6 elevi din clasa a IV-a. La începutul studiului s-au efectuat testări iniţiale privind probele tehnice (frecvenţa de lovire-precizie, menţinerea mingii în aer, lovirea mingii cu capul, dribbling printer jaloane, şut la poarta). Pentru interpretarea datelor s-au utilizat testele statistice precum: abaterea standard, coeficientul de variabilitate, testul t. **Rezultate.** Frecvenţa de lovire-precizie. După aplicarea probei s-au calculat următoarele medii aritmetice: la clasa a III-a 7,11 execuţii (T.I.) şi 8,44 execuţii (T.F.) şi la clasa a IV-a 7,50 execuţii (T.I.) cu 9,66 execuţii (T.F.). **Concluzii.** Cercetarea evidenţiat faptul că sistemele de acţionare utilizate au fost bune pentru însuşirea şi îmbunătăţirea tehnicii jocului de fotbal, dar acest lucru s-a efectuat numai după cunoaşterea nivelului de pregătire al elevilor, precum şi cu condiţia respectării metodicii de specialitate.

Cuvinte cheie: *sport, elevi, abilităţi tehnice, proceduri, rezultate*

Introduction

The methodology of sports games specifics that the learning of any technical procedure is made on the basis of some models established by specialists, these models are the result of numerous in depth biomechanical studies that mainly refer to the most important mechanism of the procedure and to the execution details specific to various styles.

The technique of the football game has a special content and all its definitions underline the same idea, namely, that it represents the ensemble of specific motor skills, they are carried out according to the laws of the superior nervous activity and the game technique, with maximum efficiency (Tudor & Ciolca, 2010; Şerbănoiu & Tudor, 2013).

The process of acquiring the football game technique during the physical education classes, involves a variety of exercises and motrical structures it also implies the students abilities of perception, analysis and reflection, the capability of transforming simple movements into more complex motor actions (Creţu, 2016, Santi, 2018).

In the didactic approach aimed at learning technical elements and procedures by students in primary school, the initial level of their motor skills is very important. In order to learn more easily and quickly, it is advisable to develop as many motor skills as possible, starting from the age of 7 or 8, being known that the technique is learnt better and easier during childhood (Dragomir & Scarlat, 2004; Stănescu, 2012).

Hypothesis

An increase in the technical level of primary school students can be seen through the use of a set of well selected models, adapted to the particularities of their age and training.

Methods and means

The research activity takes place at the Secondary School from Gâlgău Almaşului, Sălaj county, between 2021-2022. 15 students are participate in this study: 9 from the 3rd grade and 6 from the 4th.

At the beginning of the study, many technical tests are applied regarding the frequency, of hitting accuracy, the keeping of the ball in the air, heading the ball, dribbling full round between posts, shots at the gool.

For the data interpretation, some statistical tests are used: the standard deviation, the variability coefficient, "t" test.

$$t = \frac{\sum D}{\sqrt{\frac{n \cdot \sum D^2 - (\sum D)^2}{n-1}}}$$

For improving the technique of the students, there are used a number of means regarding the ball kicking, gaining the ball possession, driving the ball.

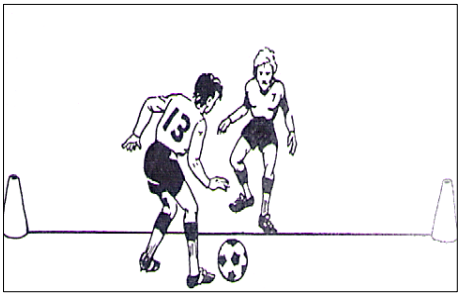

Fig. 1. Placing the ball betwen posts

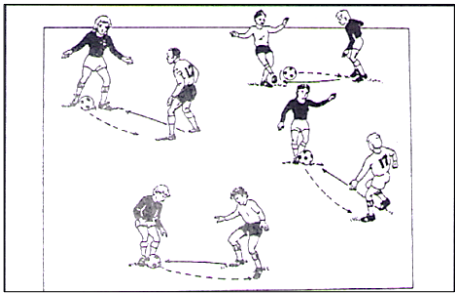

Fig. 2. Dancing feet

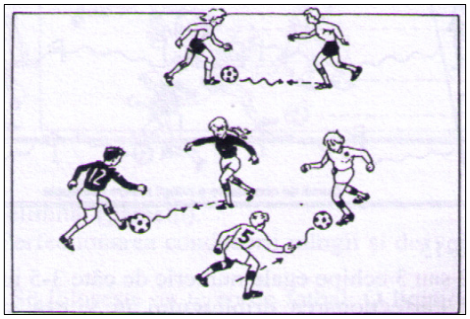

Fig. 3. Taking over the ball

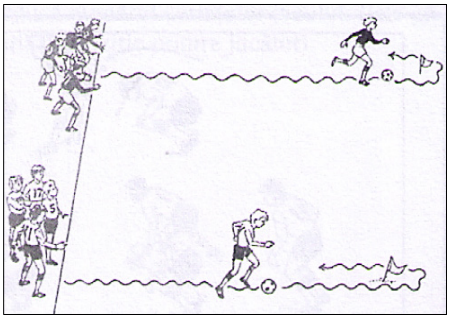

Fig. 4. Running around the flag

Results

Table 1. Statistical parameter values calculated at the frequency of kicking-precision

	3rd grade		4th grade	
	T.I.	T.F.	T.I.	T.F.
Σ	64	76	45	58
$\bar{x}$	7.11	8.44	7.50	9.66
W	3.00	3.00	3.00	3.00
Rp%	15.78%		22.41%	
(±)S	±0.92	±1.01	±1.04	±1.03
Cv	13.04%	12.00%	13.98%	10.68%
t	5.65		11.00	
p	>0.01		>0.01	

The frequency of kicking-precision

After applying the test, the following arithmetic averages are obtained in the 3rd grade, 7.11 (T.I.) executions and 8.44 (T.F.) executions and in 4th grade, 7.50 (T.I.) executions with 9.66 (T.F.) executions.

It is concluded that the results are equal for all the rows (3.00 executions), so the dispersions are high and the results homogenity is low.

It is found that there is progress in all the rows, the higher being noticed in 4 th grade (22.41%) and the lowest in the 3rd grade (15.78%).

The standard deviation evolved with large values, meaning that the individual results are quite for from the central values of their rows, indicating that their dispersions are high and their homogenity is poor.

The variability coefficient has values between 10-20 %, for both classes, resulting that the rows homogenity is medium.

The calculated "t" values for the initial and final results are higher than 0.01 threshold in Fisher's table, so the differences are significant of 99%.

Table 2. Statistical parameter values calculated when keeping the ball in the air through successive kicks

	3rd grade		4th grade	
	T.I.	T.F.	T.I.	T.F.
Σ	41	65	37	50
$\bar{x}$	4.55	7.22	6.16	8.33
W	3.00	3.00	2.00	3.00
Rp%	36.92		26.00%	
(±)S	±1.01	±0.97	±0.75	±1.21
Cv	22.25%	13.45%	12.20%	14.53%
t	12.00		7.05	
P	>0.01		>0.01	

Keeping the ball in the air through successive kicks

The arithmetic averages at this sports test are: 4.55 (T.I.) executions and 7.22 (T.F.) executions at the 3rd grade and 6.16 (T.I.) executions and 8.33 (T.F.) executions at the 4th grade.

Calculating the amplitudes, it can be noticed that the results extend on large scales between 3.00 executions and 2.00; so, the dispersions are large and as consequence the results homogenity is poor.

The progress rate has high values in all rows, the highest being noticed at the 3rd grade (36.92%) and the lowest at the 4th grade.

The standard deviation has evolved with large values, which means that the individual results deviate quite a lot from the central values of their rows, indicating that their dispersions are high so the rows homogenity is low.

The variability coefficient has values between 10-21 % for both classes. The consequence is that the rows homogenity is low; it is found the lack of homogenity at the initial testing from the 3rd grade.

The "t" values, calculated for the initial and final results, are higher than 0.01 threshold in Fischer's table, so that the differences are significant.

Table 3. Statistical parameter values calculated when heading the ball, from the spot or from the distance

	3rd grade		4th grade	
	T.I.	T.F.	T.I.	T.F.
Σ	57	58.90	43.60	46.30
$\bar{x}$	6.33	6.54	7.26	7.71
W	1.30	1.30	1.10	1.00
Rp%	3,22%		5,83%	
(±)S	±0.43	±0.47	±0.38	±0.37
Cv	6.83%	7.21%	5.27%	4.87%
t	6.82		4.53	
p	>0.01		>0.01	

Heading the ball from the spot or from the distance

After the spots testing, the following arithmetic averages are calculated: 6.33 (T.I.) and 6.54 (T.F.) at the 3rd grade and 7.26 (T.I.) and 7.71 (T.F.) at the 4th grade.

Calculating the amplitudes, it can be seen that the results are between 1.30-1.00 m, so the dispersions are high. As a consequence the results homogenity is reduced.

The progress rate shows that the greatest progress is at the 4th grade (5.83%) and the lowest at the 3rd grade (3.22%).

The standard deviation evolved with relatively high values meaning that the individual results deviate quite a lot from the central values of their rows indicating that their dispersions are high and the rows homogenity is poor.

The "t" values calculated for the initial and final results are higher than 0.01 threshold in Fisher's table (appendix 7), so that the differences are significant with 99% confidence.

Table 4. Values of statistical parameters calculated for dribbling among 5 cones

	3rd grade		4th grade	
	T.I.	T.F.	T.I.	T.F.
Σ	157.05	150.10	102.98	96.02
$\bar{x}$	17.45	16.67	17.16	16.00
W	2.55	3.36	0.76	1.47
Rp%	4.63%		7.24%	
(±)S	±0.86	±1.05	±0.31	±0.61
Cv	4.92%	6.33%	1.84%	3.85%
t	6.42		6.71	
p	>0.01		>0.01	

Dribbling between 5 goalposts

At this sports test, the arithmetic averages of the results are: 17”45 (T.I.) and 16”67 (T.F.) at the 3rd grade; 17”16 (T.I.) and 16.00 (T.F.) at the fourth grade.

From the amplitude calculation it can be concluded that the results extend over large scales between 3”36 and 0”76 so the dispersions are high and as a result the homogenity of the results is low.

The progress rate showed that the greatest progress in at the 4th grade (7.24%) and the poorest at the 3rd grade (4.63%).

The standard deviation has high values, meaning that the individual results deviate quite a lot from the central values of their rows indicating that that their dispersions are relatively high and the rows homogenity low.

The calculated “t” values for the initial and final results are greater than 0.01 threshold in Fischer’s table (appendix 7) so that the differences are significant with 99% confidence.

Table 5. The values of the statistical parameters calculated in the case of goal shot divided into squares

	3rd grade		4th grade	
	T.I.	T.F.	T.I.	T.F.
Σ	60	80	53	69
$\bar{x}$	6.66	8.88	8.83	11.50
W	3.00	4.00	2.00	3.00
Rp%	25.00%		23.18%	
(±)S	±1.11	±1.26	±0.98	±1.37
Cv	16.77%	14.27%	11.13%	11.98%
T	8.00		8.00	
P	>0.01		>0.01	

Shot at the goal divided into squares

The score obtained has generated the following arithmetic averages: 6.66 (T.I.) points and 8.88 points (T.F.) at the 3rd grade; 8.83 (T.I.) points and 11.50 (T.F.) points at the 4th grade.

Measuring the amplitudes, it can be noticed the results extend on relatively large scales between 2.00-4.00 points; so, the dispersions are relatively high, while their homogenity is low.

The progress rate shows that the grater progress is in the 3rd grade (25%) and the lowest in the 4th grade (23.18%).

The standard deviation values are also high, meaning that the individual results deviate quite a lot from the central values of their rows and that their dispersions are large and homogenity low.

The coefficient of variability has values between 10-20 % in both grades and at both tests, which means an average homogenity.

The "t" values calculated for the initial and final results are higher than the 0.01 threshold in Fisher's table (appendix 7); so, the differences are significant (99% accuracy).

Conclusions

The physical education and sports programs of the 3rd and 4th grade have, as their main purpose, the acquisition of some technical elements of the mini-football game, such as: kicking the ball, shooting the ball, receiving the ball, returning the ball, all these elements consider the game practicing.

The means and the theoretical base of the school football game have contributed to the development of the students competences and the acquisition of some specific motor skills, physical development, consolidation of moral-volitional qualities.

The research highlighted the fact that the used systems are good for acquiring and improving the football game technique. But this should be done often the training students level is clearly established.

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