THE DEVELOPMENT OF COORDINATING CAPABILITIES IN THE FOOTBALL AT JUNIOR LEVEL C

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Abstract: This paper proposes a study on finding the most efficient methods and means for the development of coordinating capacities in junior C football players from U. Craiova Sports Club. We also sought to find the optimal training report for coordinating capabilities so as to achieve consistent team progress.

The purpose of the research is to determine the optimum ratio between working with the skilful leg and the clumsy leg in ever-changing conditions of play, which will ensure the most substantial progress for both feet after a few months.

The research lasted 4 months, with a program of 5 weekly training sessions of approximately 120 minutes and a friendly game Saturday, every two weeks. Four tests were performed initially at the beginning of June, Intermediate I and II in July and August and the final test at the end of September.

By using both analytical and global working methods, and through multilateralism in preparation, the variety and transfer of skills are at the same time, thus increasing the level of skill development. We can say that by working 30% more for the clumsy foot there is the possibility that by transfer we can get favourable results for both legs.

Keywords: *football, coordination skills, workout, performance.*

Introduction

Nowadays, in modern football, ambidexterity represents a compulsory quality for those who intend to be total football players "an important role in his development being played by the type of central nervous system of the athlete, that is, his temperament." [1] "It is closely related to the other basic motor skills, and is educated and developed in the training process, in which a great deal of skills are introduced." [2] Ambidexterity means the capacity to master every movement of the body and to action according to the strict requirements of the game. "All movements requiring skill require rapid execution of technical procedures, "in order to surprise and mislead the opponent. [3] "We increasingly notice that the increased dynamics of the game is supported by some superior qualities of ambidextria and the movement of the actual execution process." [4] By developing ambidexterity, you can increase your control over the ball when confronted with the opponent, on different pitches (wet, muddy, snowy) and in different weather conditions (windy, rainy etc.).

Ambidexterity represents the finest and most complex quality in professional football. "But similar to the speed, coordinating capacities are largely determined genetically, considering their degree of tradability is lower." [5] It gives us the precise and refined harmony of movements that make a technical element appear in the eye of the spectator as being precisely, economically and easily performed; released. "As the athlete is closer to technical perfection, he needs less energy" [5], "controlling execution by means of feed-back mechanisms fed by sensory information (chemical, mechanical, luminous variations), selected on previous experiences that have been memorized " [7] ambidexterity helps the player to move all over the pitch with minimal effort and increased efficiency.

Material and method

Research hypotheses

1. Applying a complex of means for developing ambidexterity during 5-6

weekly training sessions, for about 6 months determines the improvement of indexes related to the clumsy leg.

2. The exaggerate application of a complex of exercises for the clumsy leg could have a negative effect on the skilled leg, by stagnation or involution.

Research aim

The aim of this research is to find the optimum ratio between the work with the clumsy leg and that with the skilled leg, a ratio that could result in the most substantial development, for both legs, after some months,." When the fundamental nervous processes, excitement and inhibition come to suit properly, resulting in some fine, stable, well-coordinated and efficient motor skills". [8]

Research subjects

We used 5 exercises on a lot of 24 children, aged 14, "knowing that skill is being educated at an early age, its elements being acquired more heavily after the age of 16" [8], from U Craiova Sports Club. They were divided in 4 groups of equal value, each group being made up of 2 defenders, 2 midfields and 2 attackers.

Organization of research

The research lasted for 6 months April-October 2017; there were 5 training sessions per week, 120 -130 minutes each, and a friendly game at the end of the week on Saturdays, twice a month. We made 4 tests: initial, at the beginning of April, intermediary I and II in May and June and final, at the end of October.

Means used

First trial*:* to control the ball exclusively with one leg, between cones, against the clock, on a 30-meter distance, departure from standing. The cones were placed every 3 metres. There were 20 exercises: 10 for each leg, alternately. At this trial we were interested in:

- the minimum time for one run;
- the time average for each leg, for the 20 exercises;
- the average number of touching the ball during the 20 exercises.

The second trial*:* to take over the ball, from the air, with the upper part of the shoe; the ball is thrown by a teammate from the penalty point. There were 20 exercises for each leg, alternately. Only the successful exercises were recorded, meaning that after taking over, the player was to pass to himself then he had to send the ball through a grid placed in the two corners of the large square. 16,5m

The third trial: shot on goal, with the upper part of the shoe, from 16,5 m. Along the 16,5-meter line 6 balls were placed, in each corner, every 2 meters towards the inside of the pitch. The player performed 20 exercises from each corner. Only the balls that exceeded the goal line, in the air, were recorded. If the ball fell on the goal line or hit one of the poles, the exercise was correct.

The fourth trial: to control the ball through 5 cones fixed every 2 metres, pass to himself towards the centre of the field and then shot on goal, with the upper part of the shoe, from outside the large square. The first cone was fixed at 2m. in front of each corner of the square. The player performed 20 exercises on each side of the square. Only the ball that exceeded the goal line, in the air, were recorded. If the ball fell on the goal line or hit one of the poles, the exercise was correct.

The fifth trial: to control the ball among 6 cones (without timing) placed along the central axis of the goal, followed by passing the ball through a grid on the goal line and next to each of its poles. The ball was passed from outside the large square. The cones were placed every 2m., the first one being placed at 2m. in front of the large square. The player performed 20 exercises for each leg. Only the exercises with the ball passing through the grid were recorded.

After these trials, the children had a common schedule during the training sessions and a specific program for each group, concerning the work with both legs. Thus:

- group I worked only for the clumsy leg;

- group II worked for both legs equally;
- group III worked more 25% for the clumsy leg;
- group IV worked more 25% for the skilled leg.

Data analysis and interpretation

- *For the first trial* (*see* Table 1), concerning the ***minimum time achieved***, you can notice that the second and third groups recorded a higher progress for the clumsy leg with a difference of 0.4 seconds; 0.6 seconds and 0.1 seconds. The fourth group had a favourable progress for the clumsy leg with a difference of 0.4 sec.

Concerning ***time average*** , the first and third group had great progress for the clumsy leg, the biggest difference being recorded by the first group (0.9 sec.), compared to the third group (0.3 sec.). The second and fourth groups had favourable results for the skilled leg, with a difference of 0.3 sec. and, respectively, 0.4 sec.

For ***the average number of touches***, the first and third groups recorded greater progress, with 0.6sec.and respectively 1 sec. for the clumsy leg. The second and fourth groups recorded favourable results for the skilled leg, with a difference of 0.7sec.and, respectively, 0.6sec.

- *For the second trial* (*see* Table 2), the greatest progress was recorded in the first group for the clumsy leg, 31% and the third group 29%, also for the clumsy leg. The greatest progress for the skilled leg was recorded in the fourth group, with 29%. The progress average for each leg was favourable for the clumsy leg, with a difference of 2,38%.
- *For the third trial* (*see* Table 3), you can notice a greater progress in the fourth group, 25,5%, followed by the second group, 15.5%, for the skilled leg. For the clumsy leg, the first group recorded a progress of 17%, followed by the third group, with 11%. The progress average for each leg was favourable to the clumsy leg, with a difference of 1.52%.

Table no.1
Ball control through cones for a 30-meter distance

Group	Recorded parameters	Skilled leg			Clumsy leg			Total progress for both legs	The difference of progress for both legs
		Initial test	Final test	Progress achieved	*Initial test*	Final test	Progress achieved		
No.1	Minimum time	**7,1**	**6,6**	**0,5**	**7,9**	**6,8**	**1,1**	**1,6**	**0,6**
	Time average	**7,4**	**7**	**0,4**	**8,4**	**7,2**	**1,2**	**1,6**	**0,8**
	Average number of touches	**8,2**	**9,7**	**1,5**	**7**	**9,4**	**2,4**	**3,9**	**0,9**
No.2	Minimum time	**6,9**	**6,5**	**0,4**	**7,8**	**6,5**	**1,2**	**1,6**	**0,8**
	Time average	**7,6**	**6,7**	**0,9**	**8,5**	**7,8**	**0,7**	**1,6**	**0,2**
	Average number of touches	**8,4**	**9,8**	**1,4**	**7,6**	**8,2**	**0,6**	**2**	**0,8**
No.3	Minimum time	**7**	**6,4**	**0,6**	**7,7**	**6,7**	**1**	**1,6**	**0,4**
	Time average	**7,5**	**6,8**	**0,7**	**8,3**	**7**	**1,3**	**2**	**0,6**

	Average number of touches	**8,5**	**9,5**	**1**	**7**	**9,1**	**2,1**	**2,2**	**1,1**
No.4	Minimum time	**7,2**	**6,2**	**1**	**7,5**	**7**	**0,5**	**1,6**	**0,5**
	Time average	**7,7**	**7,1**	**0,6**	**7,8**	**7,5**	**0,2**	**0,8**	**0,4**
	Average number of touches	**8,8**	**10,4**	**1,6**	**7,1**	**7,8**	**0,7**	**2,3**	**0,9**

- *For the fourth trial* (*see* Table 4), the progress recorded for the clumsy leg is almost equal in the first three groups (23,5%, 26% and 27,7%), the fourth group recording a significant progress for the skilled leg, 31%. The progress average for each leg was favourable to the clumsy one, with a difference of 0.68%.
- At the fifth trial (see Table 5), the first and third groups achieve the same progression of 37% for the clumsy foot, while the fourth group achieves a 33% progress for the skilful one. The second group achieves a greater advancement for 29.5% of the foot. The average of progress for each leg is favourable to the unintentional with a difference of 14.6%.

Table no.2
Ball takeover, with string, from the air

Group	**Skilled leg**			**Clumsy leg**			**Total progress for both legs**	The difference in % between the average of progress for the two groups
	Initial test	**Final test**	**Progress achieved**	*Initial test*	**Final test**	**Progress achieved**		
1	11 (55%)	13 (65%)	2 (10%)	5,9 (29,5%)	12,1 (60,5%)	6,2 (31%)	41%	13,5%
2	8,6 (43%)	14,2 (71%)	5,6 (28%)	5,3 (26,5%)	8,4 (42%)	3,1 (15,5%)	43,5%	- 18,5%
3	12,7 (63,5%)	14,8 (74%)	2,1 (10,5%)	5,1 (25,5%)	10,9 (54,5%)	5,8 (29%)	39,5%	10,5%
4	10,9 (54,5%)	16,6 (83,5%)	5,7 (29%)	5,4 (27%)	7,7 (38,5%)	2,3 (11,5%)	35,5%	-22,5%
	The average of progress for all groups		**19,37%**	**The average of progress for all groups**		**21,75%**	**41,12%**	**2,38%**

Table no.3
Shots on goal from the large square

Group	Skilled leg			Clumsy leg			Total progress for both legs	The difference in % between the average of progress for the two groups
	Initial test	**Final test**	**Progress achieved**	*Initial test*	**Final test**	**Progress achieved**		
1	11,4 (57%)	12,9 (64,5%)	1,4 (7,5%)	6,3 (31,5%)	9,7 (48,5%)	3,4 (17%)	24,5%	9,5%
2	10,2 (51%)	13,3 (66,5%)	3,1 (15,5%)	6,6 (33%)	9,2 (46%)	2,6 (13%)	28,5%	- 2,5%
3	11,2 (56%)	12,8 (64%)	1,6 (8%)	6,9 (34,5%)	9,1 (45,5%)	2,2 (11%)	19%	3%
4	11,6 (58%)	16,7 (83,5%)	5,1 (25,5%)	6.1 (30,5%)	7,9 (39,5%)	1,2 (9,5%)	35%	-16%
	The average of progress for all groups		**14,12%**	**The average of progress for all group**		**12,6%**	**26,72%**	**1,52%**

Table no. 4
Controlling the ball among cones, followed by shot on goal outside the large square

Group	Skilled leg			Clumsy leg			Total progress for both legs	The difference in % between the average of progress for the two groups
	Initial test	**Final test**	**Progress achieved**	*Initial test*	**Final test**	**Progress achieved**		
1	10.4 (52%)	13,8 (69%)	3,4 (17%)	6,2 (31%)	10,9 (54,5%)	4,7 (23,5%)	40,5%	6,5%
2	10,9 (54,5%)	14,7 (73,5%)	4,1 (19%)	6,0 (30%)	11,2 (56%)	4,9 (26%)	45%	7%
3	11,3 (56,5%)	16,6 (83%)	5,3 (26,5%)	6,1 (30,5%)	11,7 (58,5%)	5,6 (27,7%)	54,2%	1,2%
4	11,8 (58%)	**17,8 (89%)**	6 (31%)	6,1 (30.5%)	9,9 (49,5%)	3,8 (19%)	50%	-12%
	The average of progress for all groups		**23,37%**	**The average of progress for all groups**		**24,05 %**	**47,42%**	**0,68%**

Table no.5
Controlling the ball among cones, followed by lateral pass

Group	Skilled leg			Clumsy leg			Total progress for both legs	The difference in % between the average of progress for the two groups
	Initial test	**Final test**	**Progress achieved**	*Initial test*	**Final test**	**Progress achieved**		
I	9,6 (48%)	13,7 (68,5%)	4,1 (20,5%)	4,7 (23,5%)	12,1 (60,5%)	7,4 (37%)	57,5%	-17%
II	9 (45%)	14,9 (74,5%)	5 (29,5%)	4,9 (26%)	10,1 (50,5%)	5,2 (24,5%)	54%	5%
III	9,5 (47,5%)	14,7 (73,5%)	5,2 (26%)	4,7 (23,5%)	12,1 (60,5%)	7,4 (37%)	63%	-11
IV	9,2 (46%)	15,8 (79%)	6,6 (33%)	3,8 (19%)	9,6 (48%)	5,8 (29%)	62%	4
	The average of progress for all groups		**27,25%**	**The average of progress for all group**		**31,85%**	59,61%	**-14,6%**

Conclusions

By applying a logic complex system of means, by repetition and cumulative effect, you can ensure the superior indexes of skill, a basic quality for the young football player.

The exclusive training of the clumsy leg leads to its obvious progress but has no significant results for the skilled leg.

By using means and methods specific to football game, during the weekly training sessions and during the three parts of the training session, you can achieve substantial progress related to specific skills in a short period of time.

Concerning progress, it is greater for the skilled leg when you train both legs equally.

By using the analytic and global training methods and the multi-sided training, you can ensure the diversity and transfer of skills, leading to the development of them.

We can say that, training 30% more for the clumsy leg, there is an opportunity to obtain, by transfer, favourable results for both legs.

In developing skills, the training process has to be closely linked to the active and aware participation of subjects, due to the dependence between these and the development level of the processes related to the superior nervous activity.

Ball passing, apparently a simple technical method is as difficult to be achieved as ball takeover, ball control and shot on goal.

In order to record major progress concerning ambidexterity, the ratio inside the training session should be favourable to the skilled leg.

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