

STUDY ON THE DEVELOPMENT OF AMBIDEXTRITY THROUGH FOOTBALL IN HIGH SCHOOL STUDENTS

Tatarcan Cătălin-Andrei

¹ Secondary School "Mitocu Dragomirnei" Suceava

¹ tatarcan.catalin91@gmail.com

Grosu Bogdan-Marius

² „Ștefan cel Mare University", Suceava

² grosu.bogdan@usm.ro

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Abstract:

This study explores the impact of using soccer tools in the development of ambidexterity in secondary school students. We applied some exercises specific to the football game to evaluate the effects on the development of ambidexterity in secondary school students. The study included 28 students, divided into intervention and control groups. The target group followed a soccer-specific training program for 12 weeks, which included specific skill development exercises. Assessments before and after the intervention included juggling tests (keeping the ball in the air) and hitting the ball. The results indicated significant improvements in the target group compared to the control group. These improvements emphasize the effectiveness of soccer-specific exercises in developing ambidexterity and general coordination in middle school students. The conclusions suggest that the integration of such exercises and their practice in physical education classes can bring significant benefits in the development of motor skills and in the sports performance of students.

Introduction:

The technical training for children and juniors, respectively the gymnasium classes, is the essential element in the qualitative evolution of future football players, equally in this stage of training the emphasis must be placed on the development of motor skills, specific to the game of football, performed accurately by both legs. [6] The technical training of the players plays a decisive role in the conduct of the games. This is manifested through a perfect control of the ball characterized by executions such as shooting, taking over, heading, dribbling and dribbling, but also through the

ability to mark the opponent combined with that of standing out. In football, ambidexterity refers both to the player's movements without the ball and when performing various technical procedures.[5] If the player is more in control of his movements and if ambidexterity is developed to a higher degree, it means that he will manage to balance easily when unforeseen situations arise. This ability to perform actions with the same increased efficiency of execution with both parts of the body, leads to the achievement of effective movements on the part of the player and to the knowledge of running and applying appropriate procedures to solve certain situations that occur during a game.

Ambidexterity, defined as the ability to use both hands and feet with equal effectiveness, is a relatively rare but extremely valuable characteristic. In the sporting and educational context, developing this skill can offer significant advantages. Although most people are predominantly right- or left-handed, ambidexterity training can improve coordination, flexibility, and adaptability in various physical and cognitive activities. [1,9]

In middle school students, the critical period of physical and cognitive development, the introduction of programs designed to stimulate ambidexterity can have positive long-term effects. In sports such as soccer, the ability to use both legs equally can increase players' performance and versatility, giving them a considerable competitive advantage.[7,2]

Soccer is a global, popular and accessible sport that involves the frequent use of both feet for dribbling, passing and shooting. This characteristic makes it an ideal candidate for training aimed at developing ambidexterity. By its very nature, soccer drills encourage players to develop the ability to control the ball with both feet, pass accurately and shoot with power, regardless of which foot is used.[2,3]

Implementing a specific training program in physical education classes can facilitate the development of these skills in middle school students. Bilateral footwork oriented soccer exercises can help develop higher motor coordination and improve overall performance in various sports activities.[4,8]

By developing ambidexterity, soccer players' technical executions become considerably more accurate. The ability to control the ball with both feet allows players to make accurate tackles, even when the ball is coming in with great intensity. An effective pick-up means that the ball stays close to the player's foot, making it easier to control and direct the ball in order to anticipate and execute the execution that properly solves the tactical situation of the moment. These skills are essential to

success in soccer, where every moment and every move can influence the outcome of a game.[10]

Methods - materials:

The subjects who participated in the experiment are students of the Mitocu Dragomirnei-Suceava Secondary School, 30 boys, and the measurements took place on the school's sports field.

The research methods used in the study are as follows:

The bibliographic study method - studying the specialized literature and noting the important and necessary information for the study.

Observation method- involves direct and systematic observation of students to make accurate measurements.

The graphic method - provides a much easier to analyze overview of the initial and final testing results.

The test method is a pedagogical technique used in physical education and sports to evaluate and monitor progress in the development of bilateral coordination and other motor skills in middle school students.

Exercise number 1, take over with the inside or outside of the foot, the ball coming from the ground and from the front. The execution is done on the spot and the students are arranged in the form of a row in groups of six, three facing each other. Dosage: 6 X – distance: 5 m.

Exercise number 2, individually, with both feet, try to keep the ball in the air using any technical method of hitting the ball (juggling). The executions are done in all directions, from the spot and from the movement, both the knee, the thigh, and the upper limbs can be used, but without the trunk or head. Dosage: 3 minutes.

Exercise number 3 – driving the ball between 6 goalposts placed at a distance of 2 m from each other, back and forth. Both feet will be used, and contact with the ball will be made with the side, the outside of the foot and the inner lace, at ground level. Dosing 3 X - distance: 12 m.

Description of tests:

Test number 1 shot on goal from the run - shot on goal with the inside lace, preceded by pushing the ball with the sole of the right foot approximately 3 m, slightly to the right side. Work individually and follow the trajectory framing on the

goal area. Alternatively, it is performed in the same way with the left leg. Dosage: 6 X – distance: 15 m.

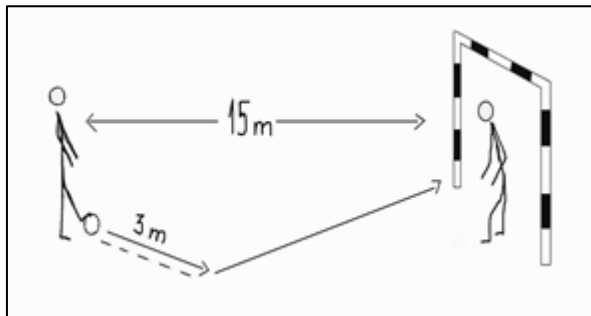


Fig.1 Shot at the gate

test number 2 - individually, the student must keep the ball in the air as many hits as possible. Any part of the leg can be used. It is mandatory to use both legs during the test. It is performed with the ball thrown from the hand or kicked from the bottom and the number of shots made is noted until the ball touches the ground.

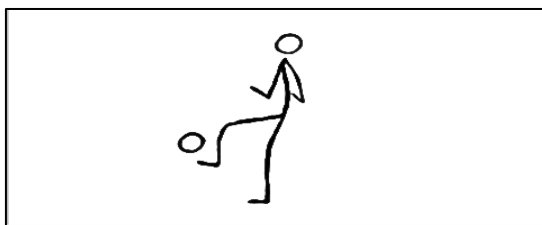


Fig.2 Juggling

Results:

The confirmatory study was carried out over the course of 12 weeks, where two measurements were made (Ti., Tf.)The data obtained are centralized and represented graphically for interpretation.

Name	The jugglers	Shot at goal from moving ball
L.D.	8	4
A.M.	10	3
V.O.	12	5
T.O.	14	3

C.N.	10	2
C.A.	11	1
G.E.	15	2
I.M.	17	3
C.M.	9	5
T.C	7	7
T.E	6	7
M.D.	8	3
E.R	12	2
V.B	15	2

Table 2. Initial testing control group

Name	The jugglers	Shot at goal from moving ball
A.D.	9	3
L.M.	8	1
H.L.	5	2
D.C.	17	4
E.R.	12	3
U.O.	10	5
P.L.	9	2
I.I.	6	1
E.C.	8	1
V.M.	12	6
G.F.	10	2
Z.A	9	2
V.B	8	4
P.F	12	5

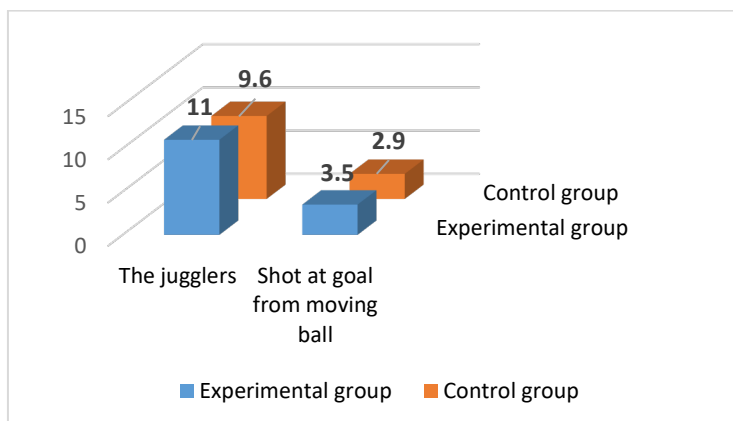


Fig. 1 Initial test

Table 3. Final testing of the experimental group

Name	The jugglers	Shot at goal from moving ball
L.D.	10	5
A.M.	15	4
V.O.	18	5
Ț.O.	20	3
C.N.	14	4
C.A.	13	5
G.E.	19	5
I.M.	20	7
C.M.	11	6
T.C	14	8
T.E	10	8
M.D.	15	7
E.R	17	6
V.B	19	4

Table 4. Final testing control group

Name	The jugglers	Shot at goal from moving ball
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A.D.	10	4
L.M.	10	2
H.L.	9	4
D.C.	16	4
E.R.	15	5
U.O.	18	4
P.L.	10	3
I.I.	13	2
E.C.	15	3
V.M.	16	2
G.F.	10	3
Z.A	11	6
V.B	15	4
P.F	13	3

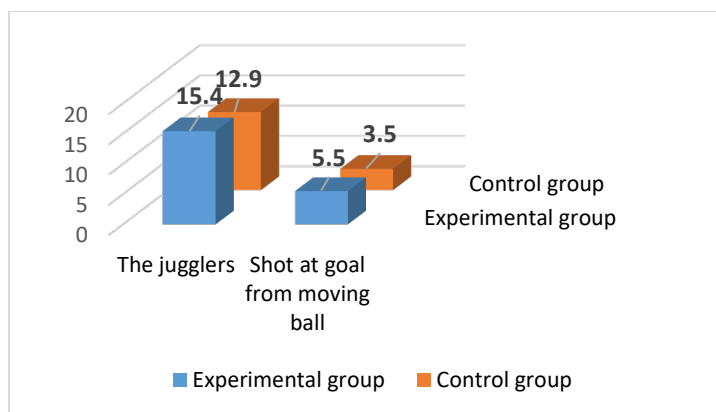


Fig. 2 Final test

Conclusions:

The development of bilateral coordination in middle school students is an essential objective in physical education and sports programs, with major implications on sports performance and general motor development. Using soccer drills to achieve this goal has proven to be extremely effective, with multiple benefits.

Bilateral coordination refers to the ability to effectively use both sides of the body during physical activities, which is crucial in soccer. This allows students to

perform complex movements with precision and improve their sports performance. Players who develop this skill have a significant advantage on the field, being able to react quickly and efficiently in different game situations.

In conclusion, the development of bilateral coordination through soccer exercises and the use of the test method represents an effective and beneficial approach in physical education for middle school students. Research and practical implementation of these strategies demonstrate that students can achieve superior performance and balanced motor development.

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