121 - PERSONAL CONTRIBUTIONS TO THE DEVELOPMENT OF THE PSYCHO-MOTOR SKILLS IN THE FOOTBALL GOALKEEPERS OF THE SPORTS HIGH-SCHOOL OF BACAU, ROMANIA

BALINT GHEORGHE 1
CÎMPIANU COSTEL 2
1 Faculty of Movement, Sports, and Health Sciences of Bacău, ROMANIA
2 Sports High-School of Bacău, ROMANIA
Mărășești 157, Bacău, 600115, Romania gyuri68@hotmail.com

doi:10.16887/87.a1.121

ABSTRACT

This research aims to bring some personal contributions to the development of the psycho-motor skills in the football goalkeepers of the sports high-school of Bacau, Romania, with the help of several specific action means with the purpose of improving the training methods for the goalkeeper position, in order to bring them as close as possible to the modern, current technical-tactical methods for the players that are specialized in this position.

The actual experiment was conducted between May and August, 2016, on football goalkeepers of the Bacau Sports High School.

The group of subjects that the research was focused on had initially a good level of motor skills, a good physical training, but a medium-level technical training. Nevertheless, the authors of this study believed it was necessary to use more complex action means, considering especially the good general motor skills and the fact that the subjects could handle the drills physically, aiming to improve their technique and the psycho-motor skills that are specific to this position.

At the beginning of the experiment, a series of action means were established for the specific goalkeeper training, common means for all the research subjects. In elaborating the action means, the authors started from the study of the game tasks of the goalkeeper during a competition game. After analyzing the goalkeeper's game from a technical-tactical point of view, according to the tasks of this position during a game, a conclusion was reached - that the specific goalkeeper training must use means that would develop certain psycho-motor skills that are specific to this position.

At the end of the experiment and after the analysis of the results, it can be said that, through the use of the action means presented in this paper, the specific goalkeeper psycho-motor skills were improved.

This improvement was possible also due to the increase in the number of individualized specific goalkeeper training sessions.

KEYWORDS: development, psycho-motor skills, football, goalkeeper

INTRODUCTION

It is hard to believe, but the Romanian social reality, which is facing great financial challenges, shows that a coach specialized in the goalkeeper position is a luxury that only a few of the premiere league teams or those in a good financial situation can afford, and where it is found, this coach is not really specialized in this activity, training the goalkeepers empirically, based on his/her own experience.

Another major problem is at the children and junior level, where it can be said that coaches do not train the future goalkeepers (except for the coaches who actually played in this position), and for a child to have his or her skills developed to a premiere league level is more about the child's talent and luck to be spotted later (or maybe too late) by a coach who is specialized in the goalkeeper position. In an ideal situation, every children and junior team would have a coach specialized in the goalkeeper position, who would deal with the selection and training of the children. Of the professional training of the coaches specialized in the goalkeeper position and their ability to observe and select will depend the future of children with trainable bio-psycho-functional skills that are specific to the goalkeeper position and, implicitly, the future of Romanian football.

METHODS

Research Purpose With all due respect for the field experts, it must be said that in the current training process, in most football teams (especially children and juniors), the goalkeeper training is treated superficially, and where it exists, either the coaches are not specialized (trained) for this position, or the specific action means used by the coach are not optimized and adapted to each individual athlete. In this sense, it must be said also that the teaching materials for the training of goalkeepers (books, videos, etc.) in Romania are not numerous, and the ones that exist have not been recently updated and do not contain a modern conception regarding the training of this kind of players.

In the case of this research, which deals with the use of several specific action means created by the authors of this paper for the development of the football goalkeeper's psycho-motor skills, the authors believe an active and creative participation of the coaches is needed in the goalkeeper's training, in order to not lose contact with the current demands of international football, as well as an update of the teaching-learning process for each age group.

Starting from the previously stated ideas - that the modernization of the current training process needs an active and creative participation of the experts, together with an update of the training process according to the demands of international football, a modernization that is not possible without the knowledge of new aspects of the theory and practice of football - the authors aimed to test the effectiveness of several action means created by them for the development of the football goalkeeper's psycho-motor skills.

Research Hypotheses

Before beginning the experiment, the following hypotheses were established:

1. The specific (combined) psycho-motor skills of the goalkeeper will improve by increasing the number of individualized training sessions for this position.

2. The principal use of the action means created specifically for this position will ensure an increased effectiveness during the training process, leading certainly to better performances of the goalkeeper during official competitions.

Subjects and conditions of the research

The actual experiment was conducted between May and August, 2016, on football goalkeepers of the Bacau Sports High School.

The group of subjects that the research was focused on had initially a good level of motor skills, a good physical

training, but a medium-level technical training. Nevertheless, the authors of this study believed it was necessary to use more complex action means, considering especially the good general motor skills and the fact that the subjects could handle the drills physically, aiming to improve their technique and the psycho-motor skills that are specific to this position.

The composition of the experimental group and the codes that will be used in this research are included in the following table, which contains: the codes that will be used throughout the research, the year of birth, as well as certain data recorded during an initial testing - height, weight, frontal coxofemoral mobility, vertical spring, speed over 50m, and standing long-jumping.

The initial testing was conducted on May 15, 2016.

LEGEND

1. Birth year (years)	**A.N.**
2. Height (meters)	**T.**
3. Weight (kilograms)	**G.**
4. Frontal coxofemoral mobility (centimeters)	**MOB.**
5. Vertical spring (centimeters)	**D.**
6. Speed over 50 meters (seconds)	**V.**
7. Standing long-jumping (meters)	**L.**

Table presenting the experimental group (juniors I and II)

No.	Code	A.N.	T.	G.	MOB.	D.	A.	L.
1.	P.F.	2001	1.89	80	44	50	6.5	2.60
2.	B. M.	1997	1.80	62	59	44	6.7	2.25
3.	M.C.	1997	1.87	75	52	40	7.0	2.28
4.	T.C.	2000	1.82	67	43	49	6.5	2.50
5.	V.D.	2001	1.83	74	48	45	6.4	2.40

Development of the experiment

In order for the goalkeepers to be effective in the current context of football, their training must be orientated toward their specialization on this position.

Out of all the actions means that are known and used in the training of goalkeepers, the coach must use the best ones according to the players' individuality and model.

At the beginning of the experiment, a series of action means were established for the specific goalkeeper training, common means for all the research subjects.

In elaborating the action means, the authors started from the study of the game tasks of the goalkeeper during a competition game. After analyzing the goalkeeper's game from a technical-tactical point of view, according to the tasks of this position during a game, a conclusion was reached - that the specific goalkeeper training must use means that would develop certain psycho-motor skills that are specific to this position.

These psycho-motor skills are:

1. specific speed (reaction, performance, movement, repetition);
2. speed power;
3. speed mobility-elasticity;
4. specific dexterity;

This experiment tried to verify the results of the action means that were used and the subjects' progress through two tests: an intermediary one (conducted during the experiment, on June 14, 2016) and a final one (conducted at the end of the experiment, on August 18, 2016).

Action means for specific speed (reaction, performance, movement, repetition)

Getting out of the goal. At 20-30 meters in front of the goal, an offender leads the ball toward the gate. The goalkeeper gets out of the goal at maximum speed and catches the ball. Another offender follows. After three consecutive goals, the goalkeepers are changed. The winner is the one who remains the longest in the goal.

Variant 1: the same, but the shot at the goal is performed after a fake.

Variant 2: getting out of the goal and resending the ball to the goalkeeper. At 20-25 meters from the goal there is an offender and a defender. A player raises the ball toward the defender, who sends it to the goalkeeper. At this moment, the offenders at 3-5 meters from the defender, as well as the goalkeeper, move toward the ball. If the goalkeeper recovers the ball, he/she gets a point. After a number of attempts, the goal is occupied by another goalkeeper. The winner is the one who gets the most points.

Action means for speed power

Getting out for shots with a high trajectory. The defenders are at 8-9 meters from the goal. The first one gets the ball and runs toward the goal. The goalkeeper tries to stop the passing of the ball above him by getting out of the goal, jumping up, or plunging. Next, the following defender starts and the following goalkeeper defends. Any failed offense counts as a point for the goalkeeper. Five points are deduced for one goal. The winner is the one who gets the most points.

Variant 1: the offender tries to pass the ball from the 11 meter point above the goalkeeper's head, who came out to catch the ball. The goalkeeper on the goal line starts when the ball hits the ground, he runs to meet the offender and tries to prevent the kick, throwing out his palms in front of the ball. After the ball bounces off, the offender can kick it alongside the goalkeeper. If the offender scored a goal, he gets one point. If the goalkeeper catches the ball or rejects it, he gets the point. The winner is the one who gets the most points. The challenge can be played also by two goalkeepers, one against the other. The winner in this case is the one who defended the most shots at the goal.

Action means for specific dexterity

. The game "Kicking the ball to a target." Between the halfline and the sideline, flags are arranged, dividing the court into five parts. The goalkeeper must kick the ball away from the goal from the 5.5. meter line, to each of the five parts, where another player resends the ball to the goalkeeper. If the designated mark is touched, the goalkeeper gets one point. The winner is the one who scores the most points out of a fixed number of attempts.

Variant: the ball is thrown by the goalkeeper from the middle of the court. The numbers inscribed in the marked spaces correspond to the points that he can score. After ten attempts, aired or dropped, the roles reverse.

Action means for mobility-elasticity

Stretching exercises.

RESULTS

Presentation and analysis of the research data

The final testing took place on August 18, 2016, containing the same challenges as the initial testing. The following table presents the results from the final testing recorded by the subjects and the comparative data of the intermediary testing, recorded at those moments of the research.

No.	Code	T.	G.	MOB.	D.	A.	L.
1.	P.F.	1.89	80	36	55	6.3	2.83
2.	B. M.	1.80	62	45	47	6.5	2.40
3.	M.C.	1.87	75	46	42	6.8	2.35
4.	T.C.	1.82	67	33	55	6.4	2.75
5.	V.D.	1.83	74	40	49	6.4	2.62

TABLE COMPARING THE INITIAL AND FINAL RESULTS

Code	Challenge	Initial testing	Final testing	Progress
P.F.	M.O.B.	44	36	↑
	D.	50	55	↑
	A.	6.5	6.3	↑
	L.	2.60	2.83	↑
B.M.	M.O.B.	59	45	↑
	D.	44	47	↑
	A.	6.7	6.5	↑
	L.	2.25	2.40	↑
M.C.	M.O.B.	52	46	↑
	D.	40	42	↑
	A.	7.0	6.8	↑
	L.	2.28	2.35	↑
T.C.	M.O.B.	43	33	↑
	D.	49	55	↑
	A.	6.5	6.4	↑
	L.	2.50	2.75	↑
V.D.	M.O.B.	48	40	↑
	D.	45	49	↑
	A.	6.6	6.4	↑
	L.	2.40	2.62	↑

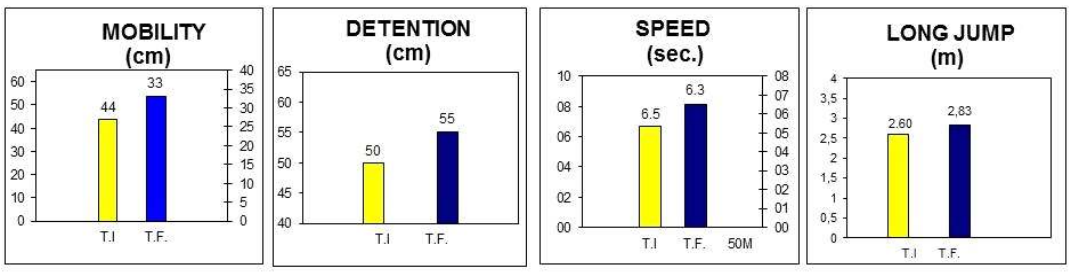
After analyzing the data from the initial and the final testing, it can be said that the methods used in this experiment are good, because at the end of the experiment all subjects have recorded a visible progress in regards to the improvement of their specific goalkeeper motor skills, a fact observed not only from the data analysis, but also from the performances of subjects PF and BM (juniors I) and TC and VD (juniors II), a progress that has contributed a lot to the teams' results (juniors I - second place at the junior championship, and juniors II - first place at the same championship, a place that ensured their participation to the county stage).

It can be said that the progress was due especially to the use of the action means presented in this paper.

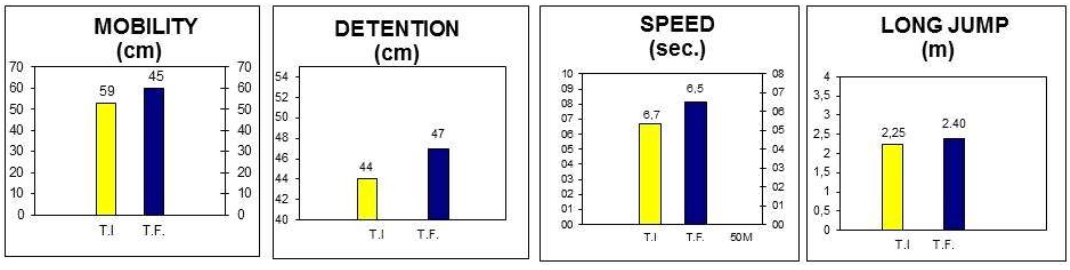
The cases in which the progress dynamic was lower or it stagnated are due to the current conditions in Romania that have lead to the impossibility to ensure a good equipment, good food, and to the bio-psycho-functional factors that are left to be desired.

Next presented are the graphs for the progress dynamics between the initial and the final testing, for each subject and challenge.

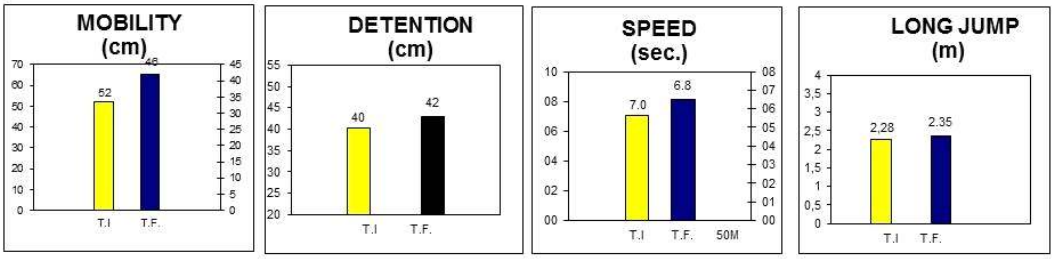
Subject P.F.



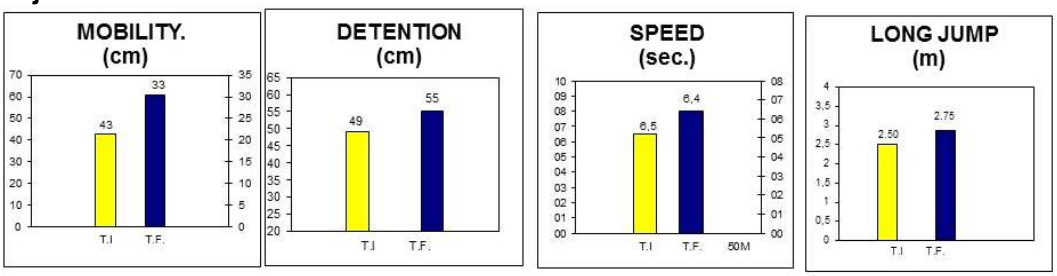
Subject B.M.



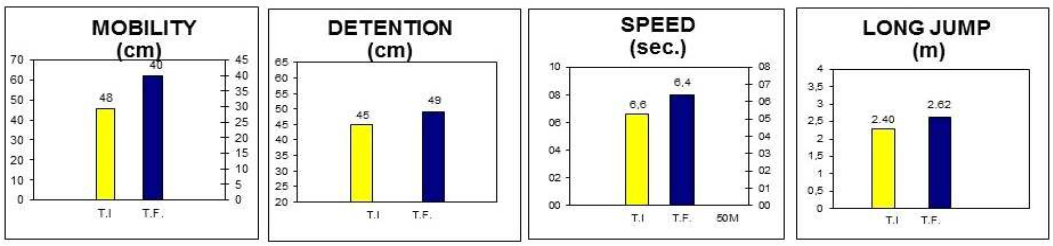
Subject M.C.



Subject T.C.



Subject V.D.



DISCUSSION

In these authors' opinion, the optimization of the action means for the specific football goalkeeper training is a difficult issue and delicate at the same time, requiring a lot of tact and skill, accompanied by the corresponding specialized knowledge.

The optimization process of the action means for the specific goalkeeper needs a scientific process, which, like any other scientific activity, must be coordinated, controlled and permanently completed with the latest news from that field. In this sense, personal empiric and subjective opinions cannot be accepted.

The possible mistakes can cause losses for the top performance goals, but also severe physical, psychological, and social injuries.

A larger use of individualization in the goalkeeper's training does not decrease the value of collective training sessions, neither quantitatively nor qualitatively. The collective training sessions ensure the integration framework for the new value indices recorded by the goalkeepers through individualization.

In order to accomplish the top performance goals, the coach must optimize the action means according to the bio-psycho-functional particularities, age, period (transition, training, competition), and training stage in which the athlete is at that time.

Only the individualized training over a relatively long period of time determines significant modifications in the effort, somatic, motor, and technical-tactical indices.

Thus, it can be said that the individualized training of goalkeepers and the optimization of the action means must accompany the training session throughout its duration, and even the top performance.

CONCLUSION

At the end of the experiment and after the analysis of the results, it can be said that, through the use of the action means presented in this paper, the specific goalkeeper psycho-motor skills were improved.

This improvement was possible also due to the increase in the number of individualized specific goalkeeper training sessions.

Also, at the end of the experiment, it can be concluded that the principal use of the action means created specifically for this position will ensure an increased effectiveness during the training process, leading certainly to better performances of the goalkeeper during official competitions.

REFERENCES

1. Balint Ghe., 2002, Bazele jocului de fotbal, Ed. Alma Mater, Bacău;
2. Balint Ghe., 2008, Bazele generale ale fotbalului, Editura Pim, Iaşi;
3. Cojocaru V., 2002, Fotbal de la 6 la 18 ani: metodica pregătirii, Ed. Axis Mundi, Bucureşti;
4. Epuran, M., 2005, Metodologia cercetării activităţilor corporale. - Exerciţii fizice, Sport, Fitness. Ediţia 2-a., Edit. FEST, Bucureşti;
5. Hoger Caillois, 2002, Les jeux et les hommes, Ed. Gallimard, Paris;
6. Mitchell, S.A., Oslin, J.L., Griffin, L.L., 2005, Teaching Sport Concepts and Skills: a tactical games approach. - Second Edition. – Champaign, Edit. Human Kinetics, U.S.A.