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**DEVELOPMENT OF THE 12-13-YEAR-OLD FOOTBALL  
PLAYERS SKILL DEPENDING ON THE SPECIFIC GAME  
POSITION**

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## CONCEPTUAL GUIDELINES OF THE RESEARCH

**Actuality and importance of the addressed problem.** Football was and remains the number one sport in the international arena, of course also referring to football in Romania, which over the years has demonstrated that it has enough reserves to train high-performance athletes for this sports event. However, in recent years, Romania has not demonstrated very high results, both at the level of European and world championships. This refers equally to the performances of seniors and juniors, who in fact are also the basic reserves for the national team.

The researches of several specialists [4, 6, 12, 19, 21] in the field of football are mostly focused on the sports training of juniors, and most of them are dedicated to the optimization of their training based on the improvement of sports training factors, such as motor training, technical, tactical and psychological training. Referring to motor training, many of the specialists [9, 11, 14, 15] emphasize the development of motor qualities specific to the football game, such as specific speed, speed in force regime, force in speed regime, speed in endurance regime and others. At the same time, very few works refer to the development of the skill, which is a very complex motor quality and absolutely necessary in the game of football at all levels.

Starting from the 90s of the last century, such specialists as P. Hirtz [8], I. Curamsin [20], V. Leah [22], V. Platonov [24] and others, substitute the term "skill" with that of "coordinative capacities", the latter being more than a hundred in number. All of them consider that skill represents the level of development of the individual's coordinative capacities. This allows us to appreciate not only the general level of skill development, but to highlight those coordinative capacities, which are more or less well developed. This allows specialists to act on those concrete coordinative qualities that need to be developed in the training process.

In the sports training system of football players, there are several stages of their training [5, 7, 10, 25] and each of them has a well-determined structure and content based on several concrete objectives. Thus, at the junior level, one of the basic objectives at this age is the selection of footballers for game positions, which are quite diverse in their content, depending on the tasks of each individual player. Precisely at this stage, the specialists, selecting the junior athletes for game positions, should take into account both the specifics and the coordinative capacities required for the given position. In fact, this has become the subject of our research, which comes to optimize the quality of selection and training of junior footballers in game positions, taking into account the specifics of the characteristic and necessary coordinative qualities for each game position.

Taking into account the arguments described above, we mention that, at present, there is no scientifically proven methodology, where the problem of the sports training of junior footballers can be treated through the directed development of the skill according to the structure of their game position.

**Research hypothesis.** It was assumed that the development of skills to junior footballers according to the specifics of game position, would contribute to the optimization of the training process, which would be expressed through:

- increasing the level of technical training of junior footballers,
- increasing the level of motor training of junior footballers,

- increasing the game efficiency of each player,
- increasing the game efficiency of the whole team,
- increasing the quality level of the team's game.

**The purpose of the research** consists in researching the effectiveness of skill development in junior footballers according to the specifics of the game position.

**Research objectives:**

1. Analysis and synthesis of specialized literature on the issue of training junior footballers.
2. Researching the level of sports training of junior footballers on a national level.
3. Elaboration of the experimental program of skill development for junior footballers according to the specifics of the game position.
4. Validation of the effectiveness of the application of the experimental skill development program to junior footballers according to the specifics of the game position.

**Scientific novelty and originality** of the research consists in the elaboration and experimental validation of the efficiency of the application of the skill development program to junior footballers according to the specifics of the game position. The practical application of the given program will contribute to the optimization of the training process of junior footballers, expressed by increasing the level of motor and technical training, as well as the quality of the game as a whole.

**The research problem** consists in optimizing the sports training process of junior footballers by implementing an experimental program focused on the differentiated development of skills according to the specifics of each game position, which comes to increase both the level of sports training of each individual player and the increase of the performance of the entire team.

**Theoretical significance** consists in the experimental approach to the issue of sports training of junior footballers according to the specifics of the game position. An experimental skill development program was developed for junior footballers according to the specifics of the game position, which contributes to increasing the ethnic and motor level, as well as qualitative game indices.

**The applicative value of the work** emerges from the possibility of implementing the experimental skill development program to junior footballers depending on the specifics of their game position, and the recorded results will be implemented to increase the qualitative level of sports training of junior footballers. The experimental program is recommended to be applied during the secondary selection period of the players for game positions, a period that coincides with the age of juniors.

**Implementation of scientific results.** The results of the research were implemented in the training process of junior football players in a series of teams from the specialized football sports clubs in Romania. They can be applied as methodological material for football coaches at the junior level, as well as in the professional training process of students in higher education institutions of physical education and sports in the "Football" specialty.

### **Classification of research results into practice.**

The proposed experimental methodology was approved and implemented in the training process of junior football players from ASC Luceafarul Bucovina 2012 Suceava. The research results were presented and published in the form of articles and reports at several national and international scientific conferences and meetings. Regarding the topic addressed, the materials were published in various national and international specialized scientific symposia and sessions, as well as in various specialized journals. Following the research carried out and the recorded results, papers were published in professional journals and at international scientific events in Chisinau (2020-2023) and Suceava (2019-2022).

## **1. THEORETICAL AND METHODOLOGICAL APPROACHES REGARDING THE TRAINING OF JUNIOR FOOTBALL PLAYERS**

(Chapter 1 content)

Sports training from beginners to the highest performance is a global process, based on several psychological, pedagogical and other legalities, all of which are closely related to each other, being directed by one or more specialists.

In the specialized literature, the problem of sports training in various events has been analyzed quite a lot, this process being called sports training. The notion of sports training is found in several domestic and foreign authors, who generally represent the same thing, the only difference being the way of describing this process. The very term "training" comes from the English word "training", which means exercise. For a long time, it also figured in the term "sports training", which meant the multiple repetition of an exercise with the aim of achieving performance results.

Thus, I. Curamsin [20, p. 344], as well as J. Holodov, V. Cuznetsov [26, p. 333] claim that sports training represents an organized pedagogical process of perfecting sports skills, directed towards the development of certain qualities, abilities and motor skills, the accumulation of theoretical knowledge, with the ultimate goal of achieving performance results in a chosen sports event.

Speaking about a concrete sports event, it contains several stages of training, depending on the stages and periods of sports training, material and methodological conditions of training. It is obvious that at any stage of training the means and methods are different once again depending on the sports event, the age of the children, their level of training, the material conditions and many others.

In this sense, the content of sports training for juniors differs greatly from that of seniors, both from a methodological and organizational point of view. Training lessons with them do not necessarily have to be oriented towards high performance from the very first years of training. At the same time, the efforts of sports and competitive training must correspond to their age and level of motor training.

Some of the specialists [2, 3, 18, 24, 26], believe that in the training process of junior athletes it is absolutely necessary to respect the working regime, qualitative medical control, the level of their development and physical training. Success in the future sports event will be ensured by the

formation of a voluminous motor baggage, here referring to the multitude of skills and motor abilities, by increasing the level of their functional training.

With advancing age, the weight of different types of training changes depending on the content of the athletes' training plan. Thus, during the junior period, i.e. in the early training period, two basic factors of sports training predominate, these being physical training and technical training. Specialists focus less on the tactical and psychological factor during this period. Once they get older, the weight of the factors of sports training will be different, once again depending on the stage of training, the age of the children, their level of sports training and others. However, one thing is obvious in this case, physical efforts will essentially increase in the process of sports training from year to year, regardless of the sports event [2, 3, 17, 18, 20, 26].

Speaking about the sports training system, it represents the systemic and regular organization of the training process and sports competitions. During the entire period of their sports training, they must improve their level of technical-tactical training, acquire the necessary knowledge and practice, improve their moral and volitional qualities as a performance athlete.

In the theory and methodology of sports training [3, 16, 17, 18, 20] there are certain age standards for children to be selected in one or another sports event, both for boys and girls. In recent years, the selection age of children has essentially decreased, practically in all sports events, there being several reasons, either the rush for results, or the training conditions, the availability of sports facilities and others. Research has clearly demonstrated that early specialization in many cases has a negative impact not only on sports performance, but also on children's health.

Taking into account the periodization of sports training, we mention that according to the standard of the Romanian Football Federation, the junior age is a very important one for achieving high-quality sports performances, either nationally or internationally. It is at this age that the foundation of a high-performing footballer is laid, as they are fully involved in the training and competition process. The junior age (12-13 years old) we are actually referring to follows the initial training stage. As stated in the RFF standard, the sports training program at the junior level should ensure:

- increasing the level of general and special physical, technical, tactical and psychological training;
- gaining experience and achieving stability in performance at official football sports competitions;
- the formation of sports motivation;
- strengthening the health of athletes.

Any training process is designed according to the age and level of motor training, the chosen sport and other options. These moments will be especially taken into account in the training process of young athletes. In this case, the training process must be organized in such a way that, demonstrating good results in an event, the athlete must maintain a good state of health and an increased interest in the practiced sports event.

Each age is characterized by an increase in the level of development of motor qualities, these periods being called sensitive periods [3, 8, 17, 18, 26], i.e. the most effective periods to develop

one or another motor quality. Thus, the best results in terms of developing the qualities of strength, speed and resistance can be obtained in the age period of 12-13 years old. This age is also characterized by the successful development of coordinative capacities and resistance strength, this being one of the very important motor qualities in the game of football.

Speaking about the technical training of junior footballers, it should be mentioned that at the age of 12-13 years old mainly the differentiation of muscle contractions develops, i.e. the precision of movements, the sense of movements and the skill specific to the game of football [1, 6, 10, 13, 16, 19, 25]. A less rapid development is observed in the qualities of strength and resistance, which according to the sensitive periods, the most effective ages in this regard are those of 13-16 years old.

Differentiated physical training has been treated by several specialists in the game of football, this in several cases being taken from the training of athletes from other sports, especially this is observed in sports games.

Skill is one of the basic motor qualities, both in physical education and in performance sport along with other motor qualities such as: strength, speed, endurance and mobility. This quality is complex and largely depends on the level of development of other motor qualities listed above.

Speaking about the notions of "coordinative capacities" and "skill" most specialists treat them largely under the same aspect, that is, as one and the same meaning. However, different authors come up with different clarifications and explanations to these two categories.

Thus, I. Curamshin [20, p.150] claims that skill is nothing but the complex manifestation of coordinative capacities and vice versa, coordinative capacities represent the level of skill development.

C. Ciorba [3, p. 46] defines coordinative capacities as the body's ability to acquire unknown movements in the shortest possible time and at the highest qualitative level.

The Russian specialists J. Holodov and V. Cuznetsov [26, p.130] believe that the coordinative capacities represent the body's ability to solve in a fast, accurate, economical and accessible way the motor tasks placed in front of the person.

Thus, even if the coordinative capacities are treated differently, in essence they have the same meaning, it just depends on where and how they are applied.

## **2. THE METHODOLOGICAL AND ORGANIZATIONAL FRAMEWORK IN THE TRAINING OF JUNIOR FOOTBALL PLAYERS DEPENDING ON THE GAME POSITION**

(chapter 2 content)

In order to organize and carry out scientific research with junior football players during a competitive year, several research methods were applied, some of them being traditional and characteristic of the game of football, others being more special, emerging from the purpose and objectives expected at the beginning of the research. These include:

- *Analysis of bibliographic sources.*



- *The study of the normative documents for the training of junior footballers.*
- *Pedagogical observation.*
- *The survey.*
- *The video method.*
- *The method of the experiment.*
- *Test method.*
- Statistical-mathematical methods.

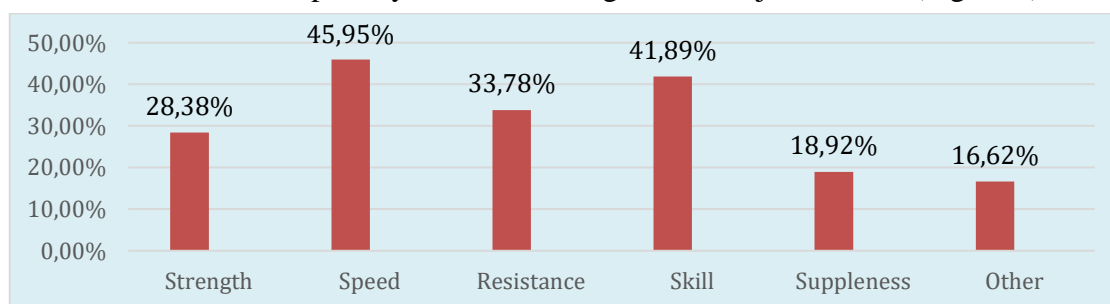
Quite often, researchers in various fields call for the conduct of surveys based on questionnaires, the goal being the selection of information from specialists for the organization and conduct of certain investigations, emerging from their results.

In the case of our research, we turned to football coaches in Romania, who are mostly concerned with the training of junior football players. Here we involved a number of 74 coaches, most of whom have coach categories in the game of football and are active in different training units for football reserves in Romania.

The set of questions refers both to the training system of junior footballers in Romania, as well as to the structure and content of the sports training of footballers aged 12-13 depending on the structure and content of each footballer's game position.

From 16 questions, we will present only some opinions of the specialists, which, in our opinion, reflect the most conclusive views related to the problem of our research.

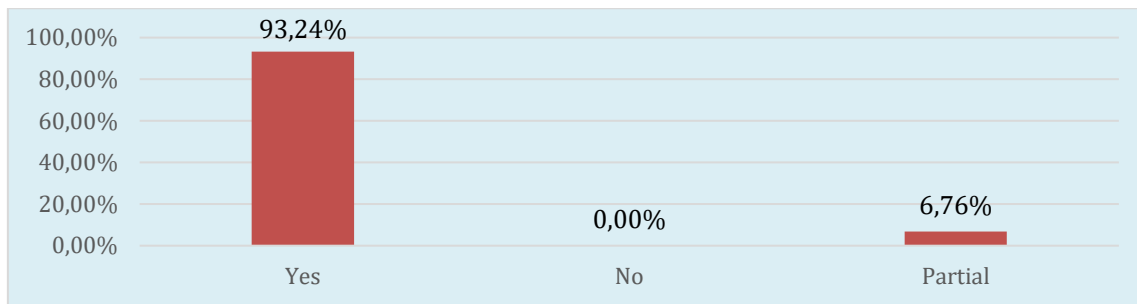
Thus, one of the questions addressed to the specialists concerns the weight of the motor qualities that we consider to be priority in the football game at the junior level (Figure 1).



**Fig. 1. Priority motor qualities in the training of junior footballers**

Specialists, in their vast majority, consider that all motor skills at this age are absolutely necessary and they must be developed to the extent possible and based on the pedagogical and physiological legitimacy of their development. However, there are some qualities that are highlighted by specialists as being very important in the training of junior footballers. Among them, 45.95% of the specialists indicate speed as a very important motor quality, skill is indicated by 41.89% of the specialists, strength and resistance was mentioned on average by 28-30% of the specialists and only suppleness, just 16.62% of those surveyed consider it absolutely necessary for junior footballers.

In the context of the above, where skill is presented as one of the most important motor qualities in the game of football, the following question was addressed to the specialists regarding its importance in the training of junior football players (Figure 2).



**Fig. 2. The role of skill in the training of junior footballers**

The figure above demonstrates very clearly the role of motor ability and skill in the training of junior footballers. Thus, 93.24% of those surveyed claim that this quality is a primary one in the training of junior footballers, and 6.76% are of the opinion that this quality is partially considered a priority in the training process of young footballers.

One of the basic objectives of the ascertaining experiment was to highlight the basic characteristics related to the structure of the game actions of junior football players according to their game position. In fact, we were particularly interested in the structure of the game actions on each post, as well as the number of executions of them in an official match.

The analysis was carried out on four game positions such as: goalkeeper, defenders, midfielders and forwards. It should be noted that here the actions of the players were recorded regardless of the extremes of the game, i.e. for central defenders, right or left defenders, all actions were recorded only on the position of defenders.

All of the above are just the motor actions that footballers perform in the goalkeeper position during the game. In the following, we will refer to the qualitative play indices by game positions, that is, the number of executions of the elements and technical procedures of the game performed by them (Tables 1-4).

**Table 1. Game actions performed by the player on goalkeeper position**

| No. Ct.                        | GAME ACTIONS IN ATTACK                            | Total no.    | %          |
|--------------------------------|---|--------------|------------|
| 1.                             | Throwing the ball into the field by hand          | 11,42        | 45,63      |
| 2.                             | Kicks   | 08,53        | 34,13      |
| 5                              | Head passes                                       | 05,07        | 20,24      |
| <b>Total actions in attack</b> |   | <b>24,97</b> | <b>100</b> |
| <b>DEFENSE GAME ACTIONS</b>    |   |              |            |
| 1.                             | Catching the ball                                 | 12,46        | 37,68      |
| 2.                             | Deliberately touching the ball with the hand/arms | 07,38        | 22,32      |
| 3.                             | Deliberately touching the ball with the foot      | 13,23        | 40,00      |
| <b>Total defense actions</b>   |   | <b>33,07</b> | <b>100</b> |
| <b>Total game actions</b>      |   | <b>58,04</b> | -          |

**Table 2. Game actions performed by the player in the position of *Defender***

| No. Ct.                            | GAME ACTIONS IN ATTACK                            | Total no.     | %          |
|------------------------------------|---|---------------|------------|
| 1.                                 | Kicks   | 52,75         | 73,56      |
| 2.                                 | Head passes                                       | 8,22          | 11,46      |
| 3.                                 | Dribbling   | 8,23          | 11,48      |
| 4.                                 | Goal Kicks  | 1,45          | 2,02       |
| 5.                                 | Goal Headshots                                    | 1,06          | 1,48       |
| <b>Total game action in attack</b> |   | <b>71,71</b>  | <b>100</b> |
| <b>DEFENSE GAME ACTIONS</b>        |   |               |            |
| 1.                                 | Completions                                       | 13,48         | 31,80      |
| 2.                                 | Deliberately touching the ball with the foot      | 15,36         | 36,24      |
| 3.                                 | Deliberately touching the ball with the hand/arms | 8,43          | 19,89      |
| 4.                                 | Interceptions                                     | 5,12          | 12,07      |
| <b>Total defense actions</b>       |   | <b>42,39</b>  | <b>100</b> |
| <b>Total game actions</b>          |   | <b>114,10</b> | <b>100</b> |

**Table 3. Game actions performed by the player on the position of *midfielders***

| No. Ct.                             | GAME ACTIONS IN ATTACK                            | Total no.     | %           |
|-------------------------------------|---|---------------|-------------|
| 1.                                  | Completions                                       | 26,46         | 20,23       |
| 2.                                  | Kicks   | 63,25         | 48,37       |
| 3.                                  | Head Passes                                       | 14,27         | 10,91       |
| 4.                                  | Dribbling   | 18,33         | 14,02       |
| 5.                                  | Goal Kicks  | 6,32          | 4,83        |
| 6.                                  | Goal Headshots                                    | 2,14          | 1,64        |
| <b>Total game actions in attack</b> |   | <b>130,77</b> | <b>100%</b> |
| <b>DEFENSE GAME ACTIONS</b>         |   | No. total     | %           |
| 1.                                  | Deliberately touching the ball with the foot      | 13,87         | 43,93       |
| 2.                                  | Deliberately touching the ball with the hand/arms | 10,48         | 31,20       |
| 3.                                  | Interceptions                                     | 7,22          | 22,87       |
| <b>Total defense actions</b>        |   | <b>31,57</b>  | <b>100%</b> |
| <b>Total game actions</b>           |   | <b>162,34</b> |             |

**Table 4. Game actions performed by the player on the position of *forwards***

| No. ct                         | GAME ACTIONS IN ATTACK                            | No. Total     | %           |
|--------------------------------|---|---------------|-------------|
| 1.                             | Completions                                       | 22,36         | 16,52       |
| 2.                             | Kicks   | 58,47         | 43,20       |
| 3.                             | Head Passes                                       | 16,31         | 12,05       |
| 4.                             | Dribbling   | 23,85         | 17,62       |
| 5.                             | Goal Kicks  | 8,67          | 6,41        |
| 6.                             | Goal Headshots                                    | 5,68          | 4,20        |
| <b>Total actions in attack</b> |   | <b>135,34</b> | <b>100%</b> |
| <b>DEFENSIVE GAME ACTIONS</b>  |   | No. total     | %           |
| 1.                             | Deliberately touching the ball with the foot      | 10,34         | 40,93       |
| 2.                             | Deliberately touching the ball with the hand/arms | 8,39          | 33,22       |
| 3.                             | Interceptions                                     | 6,53          | 25,85       |
| <b>Total defensive actions</b> |   | <b>25,26</b>  | <b>100%</b> |
| <b>Total game actions</b>      |   | <b>160,60</b> |             |

If we analyze all the actions of the players in the four game positions in attack and defense, it is clearly observed that their weight is approximately equal to the averages of the playing actions of the junior teams on a national level.

In the given case, we were interested not only in the number of game actions in attack and defense, but also in the structure from the point of view of movement coordination. That is, to whose coordinative capacity is attributed a technical-tactical action or another, whether in attack or defense. It has been clearly demonstrated that all actions in the attack, that is, where the players interact with the ball, are characteristic of a complex of coordinative capacities, these are the ability of the kinesthetic sense, spatio-temporal abilities, the ability of the sense of balance and others. That is, in the case of performing technical-tactical actions with the ball, it is practically necessary to highlight all the coordinative capacities characteristic of a game with an object, in the given case, the game with the ball.

Equally important from the point of view of coordination capacities are the technical-tactical actions in defense, the game without the ball. Thus, according to the analysis carried out, it was demonstrated that the actions performed by football players in defense, as well as in the case of forwards, are represented by the great majority of existing coordinative capacities in sports activities.

This requires from the specialists in the field the deeper research of the effects of the development of coordinative capacities in junior footballers, in particular, in game positions, a fact that would increase the quality of the game at this age.

One of the basic objectives in the research carried out was to highlight the level of motor training of junior footballers on a regional level, in this case it is about the north-east region of Romania, with the involvement of athletes from Suceava and Botosani. To achieve this goal, junior footballers from 10 representative teams in Romania were tested. In this sense, six indicators representing the level of motor training of junior footballers were used (Table 5).

**Table 5. Indices of motor training of junior football players**

| No. ct. | Control standards                | Recorded result |       | Minimal Standard |       | Maximal Standard |       |
|---------|----------------------------------|-----------------|-------|------------------|-------|------------------|-------|
|         |                                  | The result      | Score | The result       | Score | The result       | Score |
| 1.      | Dorsal Trunk Flexion , no. reps. | 36,48           | 75    | 17               | 5     | 53               | 100   |
| 2.      | Standing long jump, cm           | 2,14            | 65    | 1,70             | 5     | 2,60             | 100   |
| 3.      | Pull-ups, no. rep.               | 8,33            | 80    | 1                | 10    | 14               | 100   |
| 4.      | Shuttle 4x100m, min, p.          | 10,13           | 90    | 12,3             | 5     | 9,2              | 100   |
| 5.      | Running 2000 m, min., s.         | 7,34            | 85    | 10,22            | 5     | 6,04             | 100   |
| 6.      | Running 30m, s.                  | 4,38            | 80    | 5,3              | 5     | 3,9              | 100   |

If we analyze the entire evolution of the development of general and specific motor qualities, we notice that the results for all the tested events are relatively homogeneous and the athletes have a relatively good evolution in this regard. Even if there are some differences in results, this is

expressed by the content of the activities that each individual player has depending on the game position, the general level of motor training, as well as the body constitution of each individual athlete.

**Table 6. The level of coordinative capacity development to junior football players in game positions**

| No. ct. | Coordinative capacities  | Control exercise                                     | The game position | The sample average | Standard |
|---------|--|--|-------------------|--------------------|----------|
| 1.      | The ability to automatically relax muscles   | Dynamometry of the dexterous hand, kg                | Goalkeepers       | 1,28               | 1,0      |
|         |  |  | Defenders         | 3,44               |          |
|         |  |  | Midfielders       | 2,95               |          |
|         |  |  | Forwards          | 3,18               |          |
| 2.      | The ability to appreciate and regulate dynamic, spatio-temporal and motor parameters | Passing the ball to the target, m                    | Goalkeepers       | 4,14               | 1,0      |
|         |  |  | Defenders         | 2,33               |          |
|         |  |  | Midfielders       | 1,96               |          |
|         |  |  | Forwards          | 1,75               |          |
|         |  | 270 <sup>0</sup> back Jump                           | Goalkeepers       | 12,15              | 10,0     |
|         |  |  | Defense           | 13,58              |          |
|         |  |  | Midfielders       | 14,17              |          |
|         |  |  | Strikers          | 13,64              |          |
| 3.      | Responsiveness to excitants  | Auditory, s.   | Goalkeepers       | 0,17               | 0,1      |
|         |  |  | Defenders         | 0,16               |          |
|         |  |  | Midfielders       | 0,15               |          |
|         |  |  | Forwards          | 0,16               |          |
|         |  | Opticals, s.   | Goalkeepers       | 0,18               | 0,1      |
|         |  |  | Defenders         | 0,17               |          |
|         |  |  | Midfielders       | 0,17               |          |
|         |  |  | Forwards          | 0,16               |          |
| 4.      | Rhythm Sense   | Sprint at the proposed pace, s.                      | Goalkeepers       | 2,07               | 1,0      |
|         |  |  | Defenders         | 1,18               |          |
|         |  |  | Midfielders       | 2,02               |          |
|         |  |  | Forwards          | 1,14               |          |
|         |  | Tapping test, no. score in 30 s.                     | Goalkeepers       | 68,56              | 75       |
|         |  |  | Defenders         | 71,39              |          |
|         |  |  | Midfielders       | 68,55              |          |
|         |  |  | Forwards          | 70,16              |          |
| 5.      | Spatial orientation ability  | Running to balls, s.                                 | Goalkeepers       | 15,56              | 15,0     |
|         |  |  | Defenders         | 18,84              |          |
|         |  |  | Midfielders       | 17,35              |          |
|         |  |  | Forwards          | 15,67              |          |
|         |  | The square test , s.                                 | Goalkeepers       | 12,63              | 10,0     |
|         |  |  | Defenders         | 13,45              |          |
|         |  |  | Midfielders       | 12,58              |          |
|         |  |  | Forwards          | 12,08              |          |
| 6.      | The ability to maintain balance  | Static balance "Romberg Test", s.                    | Goalkeepers       | 42,56              | >50      |
|         |  |  | Defenders         | 37,84              |          |
|         |  |  | Midfielders       | 33,58              |          |
|         |  |  | Forwards          | 34,69              |          |
|         |  | Dynamic balance "Walking on the gymnastic bench", s. | Goalkeepers       | 6,12               | <5       |
|         |  |  | Defenders         | 8,24               |          |
|         |  |  | Midfielders       | 7,15               |          |
|         |  |  | Forwards          | 7,09               |          |

The next objective set before the expected researches was the assessment of the level of development of the coordinative capacities of the junior footballers according to their game position. Analyzing the level of development of coordinative capacities for each game position, we can easily detect the level of development of given capacities on the whole team. In this sense, a series of tests were applied within the ascertaining experiment, which were to highlight the level of development of the coordinative capacities of the tested footballers, applying the Platonov V.P.'s classification (Table 6).

All these capacities were systematized in a table, where for each coordinative capacity one or two tests were applied to verify their level of development. The data were entered into tables and were compared with the standards for each individual exercise, these being taken from several bibliographic sources of the specialists who were concerned with the research of the given problem in different sports events, including the football game.

Thus, the coordinative capacities being absolutely necessary in the game of football, have a low level of development at this age, and this can and must be remedied by applying different methodologies, with the use of appropriate means to improve them.

Analyzing the results of the level of motor training and the development of coordinative capacities, these being analyzed separately, we notice that the level of motor training is an average one and is included in the national scales provided for the junior age. At the same time, the recorded results clearly show that the level of coordination capacity development leaves much to be desired, being quite weak. This can be explained by the fact that football specialists very little, if not at all, deal with the issue of developing the coordination capacities of junior footballers.

Analyzing the results of the level of development of the coordinative capacities of 12-13-year-old junior football players on a regional level, a relatively low level is clearly highlighted in most of the events tested, regardless of the game position, these being inferior to the national standards for each individual capacity.

This remains one of the major problems in the training of football reserves at the national level, the solution of which will contribute to increasing the level of sports training of football players of junior age and beyond.

### **3. EXPERIMENTAL ARGUMENTATION OF THE EFFECTIVENESS OF SKILL DEVELOPMENT TO JUNIOR FOOTBALL PLAYERS DEPENDING ON THE GAME POSITION**

(chapter 3 content)

Speaking about sports training at any level, we will necessarily refer to the particularities of motor training, regardless of their age and level of sports training. The practices of several specialists in the field of football [6, 10, 12, 16, 23] have demonstrated experimentally that the ability to master game techniques largely depends on the level of development of motor skills. Based on the particularities of the age of 12-13 years, it is absolutely possible and necessary to effectively develop basic motor qualities such as: skill, flexibility, speed, strength in speed regime and others.

Most specialists [1, 6, 10, 12, 14, 16, 21, 23] at that age emphasize two basic factors of sports training, which are motor training and technical training. The tactical compartment and training through the game should not be neglected either, which is actually mandatory at all stages of training. Only an insignificant weight at this age belongs to the theoretical (psychological) training, where it does not exceed 5% of the volume of training time on average.


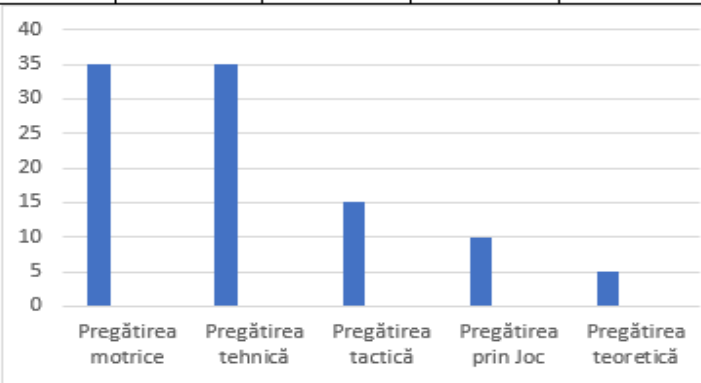
Starting from the above, an experimental program was proposed for the training of 12-13-year-old junior footballers, the content of which was distributed according to the proposals of the specialists mentioned above, and the main emphasis was placed on the development of skill according to the game position of them (Table 7 and 8). All the content of this program is presented in detail in Appendix 2 of the paper.

**Table 7. Annual distribution of training hours by types of training for 12-13-year-old footballers**

| No. ct. | Types of training                                    | Number of hours       |
|---------|--|-----------------------|
| 1.      | Theoretical training                                 | 14                    |
| 2.      | General physical training                            | 44                    |
| 3.      | Specific physical training (Coordinative capacities) | 46                    |
| 4.      | Technical training                                   | 90                    |
| 5.      | Tactical training                                    | 32                    |
| 6.      | Game and competitive training                        | 30                    |
| 7.      | Tests of the level of sports training                | 8                     |
| 8.      | Recovery activities                                  | According to the plan |
| 9.      | Weekly number of hours                               | 6                     |
|         | <b>Total hours</b>                                   | <b>264</b>            |

**Table 8. The content of the sports training of 12-13-year-old footballers**

| Factorii antrenamentului sportiv | Pregătire a tehnică | Pregătire a motrice | Pregătirea tactică | Pregătirea prin Joc | Pregătirea Teoretică (psihologică) |
|----------------------------------|---------------------|---------------------|--------------------|---------------------|------------------------------------|
| Ponderea în %                    | 35                  | 35                  | 15                 | 10                  | 5                                  |

The reference period 12-13 years is one where, according to the data of the specialized literature, the vast majority of motor qualities are registered in the sensitive periods of their

development, that is, in the most favorable periods of their development both from a physiological point of view, as well as from a pedagogical point of view.

It should be noted that in sports activities, one or another motor quality is never manifested only as a separate one. For example, during speed running the athlete will also need other motor qualities such as strength, flexibility, skill and others. Motor qualities are analyzed separately, resulting only from the need to understand their mechanism, either pedagogical or physiological. In fact, in practice, motor qualities, for the most part, meet in various combined forms such as: strength in speed regime, strength in resistance regime, speed in skill regime, speed in skill regime and many others.

The physical training of footballers, especially at the junior level, is quite complex, resulting from several considerations, including the particularities of their age.

For beginner players, sufficient attention is paid to the development of basic motor skills, both through traditional exercises and through the application of exercises with the ball, performing different elements and technical procedures in the football game.

However, in the sports activity and not only, there is another motor quality, without which it is simply impossible to imagine the game of a football player, this is called *skill*.

Skill in football is the orientation of the player on the field, the ability to duel with the opponent and emerge victorious. Skill is a very complex motor quality, and the essence and necessity of its development in the game of football will be constantly taken into account at any level of training, including the junior level in the content of this program.

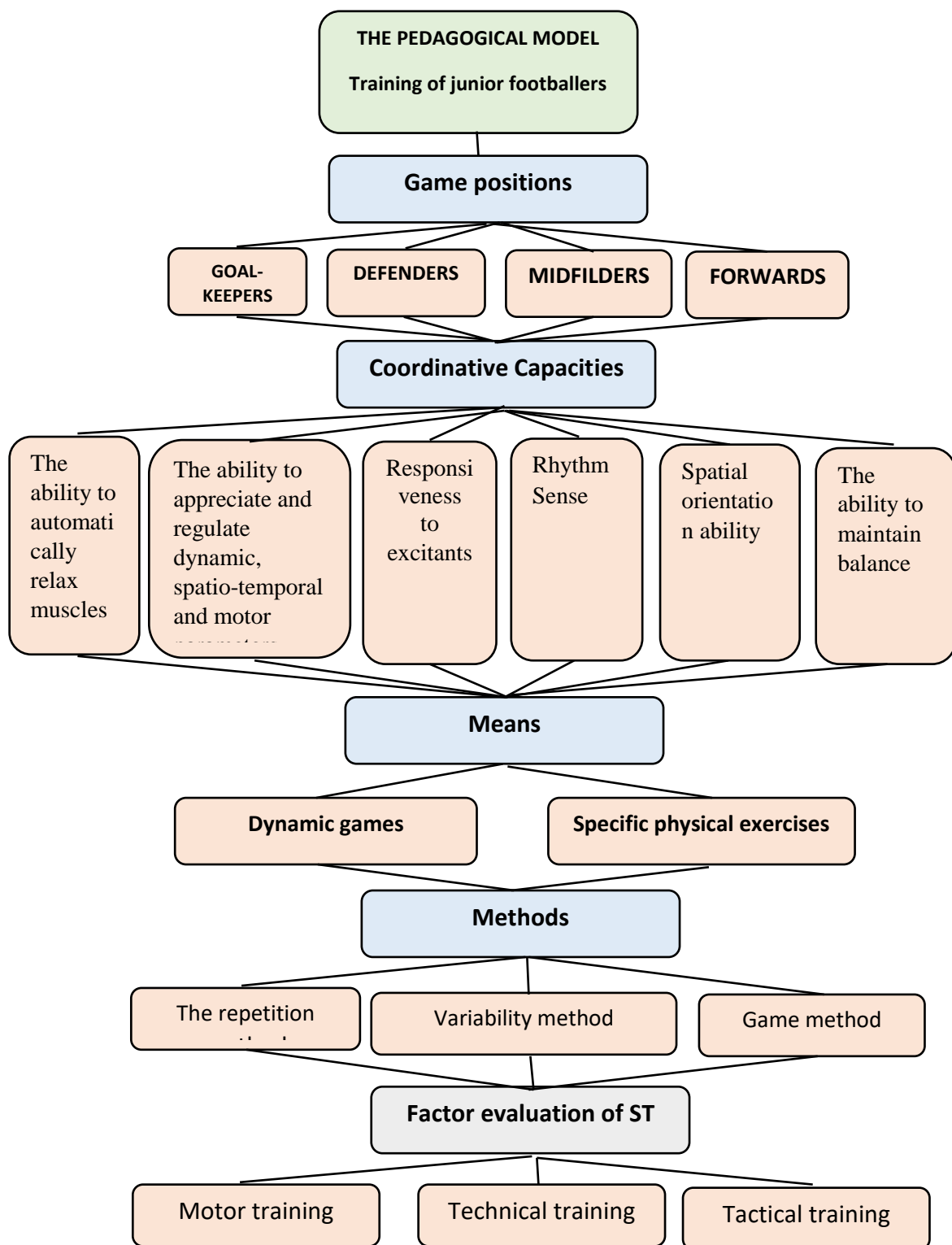
Following the presentation of the content of the experimental program, a Pedagogical Model was developed regarding the training of junior footballers through the development of coordinative capacities (skills) depending on the game position of the footballers (Figure 3).

The given model focuses on several general compartments, which are the basis of the training of junior footballers, through the development of coordinative capacities according to the playing position. First of all, the four game positions were indicated, which are actually described in several bibliographic sources, these being goalkeeper, defenders, midfielders and forwards.

To begin with, the coordinative capacities that were to be developed in junior footballers were assessed, this representing a classification presented by several specialists in various publications, and in our case, we focused on the classification of the Ukrainian researcher V. Platonov [24].

Very important in a sports training model is the appropriate use of means to successfully solve the tasks set before the coach. In this case, the means are described in the complete program, which is presented in the appendices of the paper. Here are described both exercises for physical and technical-tactical training, as well as special exercises for developing the skill of junior footballers depending on the game position.





**Fig. 3. Pedagogical model of skill development (coordinative capacities) depending on the game position of junior footballers**

The next compartment of the pedagogical model was the training methods, these being some specific to the football game expressed in three large groups, which are quite frequently used in the training process for several sports events, including the football game, these being the method of repetitions, the method of variability and the method of the game, the last one being the most frequently applied, especially at the junior level.

Understandably, any program or any model will eventually include a series of rules and exercises to check the condition of the athletes. In our case we focused on checking the level of training on the three factors of sports training such as: technical training, motor training and tactical training. Obviously, for the development of the coordinative capacities both on game positions and of the entire teams (experimental and control), certain specific tests were applied, these being selected from several sources of local and foreign specialists. Theoretical and psychological preparation at this level of training does not occupy too much time in the training process of athletes at junior level.

Anyway, the given model is not a definitive one, it can be optimized, completed with other compartments depending on the number of athletes, their training stage, their level of sports training and others.

The given model focused on the experimental program was applied during a calendar year with 12–13-year-old footballers, and the results of their implementation in practice are presented below.

Physical training is one of the basic factors in the preparation of any athlete, in any sport, including the game of football. Moreover, in the case of our research, this compartment is quite up-to-date, given the fact that a good part of the motor qualities is precisely included in the sensitive periods of their development, that is, the period in which they can and must be developed systemically and with a well-defined purpose. For example, the qualities of strength and endurance are precisely indicated to be developed best at junior age. The other motor qualities can also be successfully developed at the given age, and the standards indicated in the research carried out by professionals from Romania and other countries with football traditions can serve as performance indicators.

In order to assess the level of physical training of the junior football players during the pedagogical experiment, the evolution of the motor parameters of the junior football players at the beginning and end of the experiment was analyzed, both in the experimental group and in the control group.

The events subjected to the research were the same as in the case of the ascertaining research, these being taken from the normative acts of the Romanian Football Federation, where all the motor qualities necessary in the game of football are represented.

In addition to this, all the recorded results were compared both at the team level and differentiated by game positions, where certain deficiencies related to the sufficient or insufficient level of development of some or other motor qualities were highlighted, arising from the specific structure and content of the game positions.

To begin with, we will analyze the results recorded by the entire team (Table 9), without taking into account the game positions, a fact that will allow us to appreciate the level of motor training of the junior footballers within the one-year pedagogical experiment.

**Table 9. Dynamics of motor indices of junior football players *at the team level***

| No<br>ct. | MOTOR TESTS                  | I.T.<br>$X_{1\pm m_1}$ |                  | F.T.<br>$X_{2\pm m_2}$ | t    | P      |
|-----------|------------------------------|------------------------|------------------|------------------------|------|--------|
| 1.        | Trunk flexions,<br>no. Reps. | CG                     | 37,55 $\pm$ 1,17 | 38,14 $\pm$ 1,23       | 0,36 | P>0,05 |
|           |                              | EG                     | 38,12 $\pm$ 1,28 | 41,67 $\pm$ 1,31       | 2,59 | P<0,05 |
|           |                              | t=0,79; P>0,05         |                  | t=1,96;<br>P<0,05      |      |        |
| 2.        | Standing long<br>jump, cm    | CG                     | 1,73 $\pm$ 0,09  | 1,85 $\pm$ 0,05        | 1,20 | P>0,05 |
|           |                              | EG                     | 1,74 $\pm$ 0,11  | 1,93 $\pm$ 0,07        | 2,71 | P<0,01 |
|           |                              | t=0,07; P>0,05         |                  | t=0,09;<br>P>0,05      |      |        |
| 3.        | Pull-ups, no. reps.          | CG                     | 7,23 $\pm$ 0,21  | 7,68 $\pm$ 0,24        | 1,45 | P>0,05 |
|           |                              | EG                     | 7,11 $\pm$ 0,27  | 7,73 $\pm$ 0,25        | 1,63 | P>0,05 |
|           |                              | t=0,35; P>0,05         |                  | t=0,13;<br>P>0,05      |      |        |
| 4.        | Shuttle 4x100m,<br>min, p.   | CG                     | 9,42 $\pm$ 0,24  | 9,23 $\pm$ 0,21        | 0,58 | P>0,05 |
|           |                              | EG                     | 9,38 $\pm$ 0,27  | 8,47 $\pm$ 0,28        | 2,33 | P<0,05 |
|           |                              | t=0,11; P>0,05         |                  | t=2,17;<br>P<0,01      |      |        |
| 5.        | Running 2000 m,<br>min., s.  | CG                     | 7,14 $\pm$ 0,22  | 7,03 $\pm$ 0, 21       | 0,38 | P>0,05 |
|           |                              | EG                     | 7,23 $\pm$ 0,28  | 6,12 $\pm$ 0,27        | 2,78 | P<0,05 |
|           |                              | t=0,26; P>0,05         |                  | t=2,68;<br>P<0,05      |      |        |
| 6.        | Running 30m, s.              | CG                     | 4,17 $\pm$ 0,07  | 4,22 $\pm$ 0,06        | 0,56 | P>0,05 |
|           |                              | EG                     | 4,27 $\pm$ 0,08  | 4,04 $\pm$ 0,07        | 2,09 | P>0,05 |
|           |                              | t=0,91; P>0,05         |                  | t=2,01;<br>P>0,05      |      |        |

Note: n=24 P - 0.05 0.01 0.001

f= 17      t = 2,110    2,898    3,965      r - 0,544  
f= 34      t = 2,032    2,728    3,601

Analyzing the results of the motor training of the whole team, a tendency to improve the results in this regard is clearly observed, which indicates the effectiveness of the implementation of the experimental program aimed at developing the coordination capacities according to the game position of the junior footballers.

Thus, developing coordinative capacities will achieve a positive transfer on the development of other motor qualities, this being demonstrated in the formative experiment carried out with 12-13-year-old junior footballers.

Another indicator subject to our research was the technical training of footballers, this being one of the basic factors in sports training, especially of junior footballers. When we talk about technical training, we mean the correctness and efficiency of performing the technical elements and procedures of the football game in different situations, some created artificially, some in game conditions.

Focusing on the opinions of several specialists in the game of football, it is clear that at the initial training stage the coaches focus their attention on two basic factors in their sports training, here we are referring to the motor and technical factors. Often the share of these factors reaches 70-80% of the total amount of time given to the athletes' training. Namely, these two factors in the initial training process, especially at the junior level, will determine the level of sportsmanship of

the respective footballers. In this sense, the specialists come up with a series of practical-methodical recommendations for increasing the level of technical training at the junior level.

In the case of our research, it was proposed to increase the level of technical training of junior footballers based on the development of coordinative capacities according to the content of each game position of junior footballers. The proposed experimental program was specifically based on this direction, where a series of specific means were recommended for the development of coordinative capacities according to the game position, which consequently were to increase the level of technical training of junior footballers.

In order to assess the level of technical training of junior footballers, we focused on several specific tests, these being mostly taken from the recommendations of specialists in the game of football, as well as the recommendations of the Romanian Football Federation for that age.

In this sense, seven control tests were applied, which demonstrate the level of acquisition of the technical elements and procedures of the football game at the junior level. Here mostly all elements of the football game are presented, starting with passing the ball and ending with goal kicks.

All tests were converted into scores specially developed by the Romanian Football Federation, where each test had the maximum number of points, which could be accumulated by the footballers involved in the pedagogical experiment.

Both at the beginning and at the end of the pedagogical experiment, both experimental and control groups were tested, and the recorded results were statistically processed and presented in Table 10.

**Table 10. The results of acquiring playing technique by the junior footballers involved in the pedagogical experiment (max. no.= 60 points)**

| No<br>ct. | Technical procedures                   | Group | T.I.<br>$\bar{X}_1 \pm m_1$ | T.F.<br>$\bar{X}_2 \pm m_2$ | t    | P     |
|-----------|--|-------|-----------------------------|-----------------------------|------|-------|
| 1.        | Side gate kicks from 3<br>fixed points | CG    | 38,75 $\pm$ 1,53            | 40,27 $\pm$ 1,26            | 1,18 | >0,05 |
|           |  | EG    | 37,58 $\pm$ 1,36            | 42,29 $\pm$ 1,34            | 2,46 | <0,01 |
|           |  |       | t=0,57; P>0,05              | t=0,10; P>0,05              |      |       |
| 2.        | Dribbling between<br>cones             | CG    | 41,37 $\pm$ 1,13            | 43,22 $\pm$ 1,18            | 1,13 | >0,05 |
|           |  | EG    | 40,42 $\pm$ 1,17            | 45,17 $\pm$ 1,21            | 2,83 | <0,01 |
|           |  |       | t=0,58; P>0,05              | t=1,15 P>0,05               |      |       |
| 3.        | Juggling square                        | CG    | 34,19 $\pm$ 1,68            | 37,74 $\pm$ 1,21            | 1,72 | >0,05 |
|           |  | EG    | 35,22 $\pm$ 1,92            | 41,86 $\pm$ 1,88            | 2,48 | <0,01 |
|           |  |       | t=0,40; P>0,05              | t=1,88 P>0,05               |      |       |
| 4.        | Acurate pass                           | CG    | 37,24 $\pm$ 1,13            | 39,11 $\pm$ 1,22            | 1,13 | >0,05 |
|           |  | EG    | 38,19 $\pm$ 1,18            | 42,23 $\pm$ 1,16            | 2,45 | <0,01 |
|           |  |       | t=0,61; P>0,05              | t=1,85; P>0,01              |      |       |
| 5.        | Head gate kicks in<br>motion           | CG    | 26,32 $\pm$ 1,92            | 29,23 $\pm$ 1,54            | 1,14 | >0,05 |
|           |  | EG    | 25,19 $\pm$ 1,74            | 31,25 $\pm$ 1,87            | 2,41 | <0,01 |
|           |  |       | t=0,44; P>0,05              | t=0,83; P>0,05              |      |       |
| 6.        | Accurate long pass                     | CG    | 36,44 $\pm$ 1,74            | 39,58 $\pm$ 1,57            | 1,34 | >0,05 |
|           |  | EG    | 35,86 $\pm$ 1,68            | 41,43 $\pm$ 1,63            | 2,38 | <0,05 |
|           |  |       | t=0,24; P>0,05              | t=0,82; P>0,05              |      |       |
| 7.        | Accurate kicks                         | CG    | 30,33 $\pm$ 1,57            | 33,42 $\pm$ 1,51            | 1,37 | >0,05 |
|           |  | EG    | 29,26 $\pm$ 1,50            | 35,37 $\pm$ 1,48            | 2,91 | <0,01 |
|           |  |       | t=0,50; P>0,05              | t=1,15; P>0,05              |      |       |

Analyzing the results of the acquisition of the technique of the football game we can conclude that the application of the experimental program in the sports training of junior footballers had a significant impact regarding the level of acquisition of the technical elements and procedures of the game subject to the pedagogical analysis. According to the recorded data, it is clearly observed that the highest level of acquisition of technical elements was demonstrated in the case of dribbling the ball and juggling in a limited space. At the same time, the most difficult elements to master were the accurate gate kicks, either with the head or with the foot from standard positions. This is also confirmed by other football specialists [5, 6, 10, 14, 21] and is characteristic of the vast majority of teams, regardless of their level and stage of sports training.

At the same time, it has been clearly demonstrated that the implementation of a program focused on the development of coordinative capacities essentially optimizes the level of technical training of footballers, in the given case of junior footballers. Moreover, the training was carried out differently, depending on the structure and content of the activity characteristic of each game position.

Following the application of the experimental program with 12-13-year-old junior footballers within the one-year pedagogical experiment, one of the basic objectives in this case was to highlight the level of development of their coordination capacities according to the position of game. Following the pedagogical experiment, we were interested in how the indicators of the development of the coordination capacities of the players in the entire team evolved, as well as in each individual position (Table 11).

In this case we analyzed six coordinative capacities and one verification test for each capacity as follows:

1. The ability to automatically relax the muscles – the Dynamometry test of the dexterous hand.
2. The ability to appreciate and regulate dynamic, spatio-temporal and motor parameters – the 270° Back Jump test.
3. Responsiveness to excitants– the Optic test.
4. Sense of rhythm – the Tapping test.
5. Spatial orientation ability – the square test.
6. The ability to maintain balance - Static balance "Romberg Test".

Both the football players from the experimental group and those from the control group were tested at the beginning and end of the pedagogical experiment, and the recorded results were processed statistically and presented in the form of tables.

The results of the formative experiment indicate a significant increase in the coordinative parameters of the football athletes participating in the experiment at the team level, with a preponderance of the football players in the experimental group, this being highlighted quite clearly in the table below following statistical calculations.

**Table 11. Dynamics of indices of the development of coordinative capacities to junior football players participating in the pedagogical experiment**

| No. ct. | Coordinative capacities  | Control exercise                      | Group | I.T.<br>$\bar{x} \pm m_1$          | F.T.<br>$\bar{x} \pm m_2$         | t           | P               |
|---------|--|---------------------------------------|-------|------------------------------------|-----------------------------------|-------------|-----------------|
| 1.      | The ability to automatically relax muscles   | Dynamometry of the dexterous hand, kg | CG    | 3,14 $\pm$ 0,04                    | 3,03 $\pm$ 0,03                   | <b>1,83</b> | <b>&gt;0,05</b> |
|         |  |                                       | EG    | 3,12 $\pm$ 0,03                    | 2,97 $\pm$ 0,05                   | <b>2,50</b> | <b>&lt;0,05</b> |
|         |  |                                       |       | <b>t=0,40;</b><br><b>P&gt;0,05</b> | <b>P&gt;0,05</b>                  |             |                 |
| 2.      | The ability to appreciate and regulate dynamic, spatio-temporal and motor parameters | 270 °Back Jump                        | CG    | 14,10 $\pm$ 0,15                   | 13,87 $\pm$ 0,14                  | <b>1,15</b> | <b>&gt;0,05</b> |
|         |  |                                       | EG    | 14,09 $\pm$ 0,13                   | 13,43 $\pm$ 0,12                  | <b>3,67</b> | <b>&lt;0,01</b> |
|         |  |                                       |       | <b>t=0,45;</b><br><b>P&gt;0,05</b> | <b>t=2,44</b><br><b>P&lt;0,05</b> |             |                 |
| 3.      | Responsiveness to excitants  | Opticals, s.                          | CG    | 0,16 $\pm$ 0,03                    | 0,12 $\pm$ 0,03                   | <b>1,50</b> | <b>&gt;0,05</b> |
|         |  |                                       | EG    | 0,20 $\pm$ 0,05                    | 0,11 $\pm$ 0,02                   | <b>2,25</b> | <b>&lt;0,05</b> |
|         |  |                                       |       | <b>t=0,71;</b><br><b>P&gt;0,05</b> | <b>t=0,05</b><br><b>P&gt;0,05</b> |             |                 |
| 4.      | Sense of rhythm  | Tapping test, no. Points in 30 s.     | CG    | 66,32 $\pm$ 1,74                   | 69,23 $\pm$ 1,67                  | <b>1,32</b> | <b>&gt;0,05</b> |
|         |  |                                       | EG    | 66,39 $\pm$ 1,68                   | 72,24 $\pm$ 1,72                  | <b>2,44</b> | <b>&lt;0,05</b> |
|         |  |                                       |       | <b>t=0,03;</b><br><b>P&gt;0,05</b> | <b>t=1,27</b><br><b>P&gt;0,05</b> |             |                 |
| 5.      | Spatial orientation ability  | The square test, s.                   | CG    | 12,55 $\pm$ 0,27                   | 12,09 $\pm$ 0,30                  | <b>1,18</b> | <b>&gt;0,05</b> |
|         |  |                                       | EG    | 12,49 $\pm$ 0,23                   | 11,61 $\pm$ 0,25                  | <b>2,59</b> | <b>&lt;0,05</b> |
|         |  |                                       |       | <b>t=0,43;</b><br><b>P&gt;0,05</b> | <b>t=1,26</b><br><b>P&gt;0,05</b> |             |                 |
| 6.      | The ability to maintain balance  | Static balance "Romberg Test", s.     | CG    | 35,18 $\pm$ 1,14                   | 38,11 $\pm$ 1,18                  | <b>1,26</b> | <b>&gt;0,05</b> |
|         |  |                                       | EG    | 36,12 $\pm$ 1,09                   | 40,14 $\pm$ 1,13                  | <b>2,57</b> | <b>&lt;0,05</b> |
|         |  |                                       |       | <b>t=0,60;</b><br><b>P&gt;0,05</b> | <b>t=1,24</b><br><b>P&gt;0,05</b> |             |                 |

Thus, even if in modern football is a tendency for footballers to possess universal training, i.e. being able to deal with any game situation, however, there are differences regarding the level of training of players in game positions, these emerging from the content and specifics of each game position. Depending on this, the specialists will take into account the mentioned and will give priority attention to the development of those qualities that are necessary for one game position or another. That is, the coaches, according to the training plans, will systematize and stimulate the differentiated training of the players, depending on their game position, depending on the content of the actions they are going to perform on the game field. This is very well highlighted in the chapter on the development of the coordinative capacities of the footballers, who have clearly demonstrated that this is absolutely necessary in the training process, especially at the junior level.

## GENERAL CONCLUSIONS AND PRACTICAL-METHODICAL RECOMMENDATIONS

Following the research carried out with junior footballers aged 12-13 through the development of coordinative capacities according to the game position, in accordance with the expected objectives, the following conclusions were formulated:

1. The analysis of specialized literature on the issue of sports training of junior footballers highlights the fact that the age of juniors, including 12-13 years old, and the way in which the training process will be carried out, is decisive for the training of performance footballers, the future reserves of national football.

2. The results of several researches noted, that the traditional technologies for training junior footballers quite often do not ensure a high level of training, a fact demonstrated by the evolution of the national teams and by the results of the ascertaining experiment, where very modest results were recorded at most tested indicators.

3. Following preliminary research, in the framework of the ascertaining experiment, it was demonstrated that 12-13-year-old junior footballers at the regional level, which actually coincides with the national level, have a relatively low level in most of the sports training factors, here we are referring to the motor and technical-tactical training, and the recorded results are far below the national scales established by the Romanian Football Federation.

4. The research in the ascertaining experiment demonstrated the fact that each game position has its own specifics and requires a differentiated treatment of the players according to its structure, especially during the secondary selection period, which coincides perfectly with the age of the 12-13 year- old juniors, participants to the carried out research.

5. Following the performance of the ascertaining experiment, it was demonstrated that the level of sports training of the junior footballers aged 12-13 in Romania is medium-poor, a fact demonstrated by the results recorded when testing the technical and motor indicators, which mostly do not meet the standards of the Romanian Federation of Football for that age. Regarding the motor parameters, the worst results were recorded in the case of speed and force qualities in speed regime, and in the case of technical tests, the lowest results were recorded in the passes tests and accurate kicks. Either way, these are the most important qualities and actions in the game of football at any level.

6. The results of the ascertaining experiment highlighted the fact that the weakest results were recorded in the case of testing the coordinative capacities of junior footballers aged 12-13 years, where in most of the events submitted to the test, the athletes recorded quite modest results, regardless of the position of game of each footballer, and this requires the involvement of football specialists to intervene with modern means and methodologies to optimize this training compartment, which can quite influence the training of future performance footballers.

7. Speaking about the motor parameters, the most relevant results were recorded by the footballers in the positions of goalkeepers and midfielders, and the most remarkable results from the point of view of technical training were demonstrated by the players in the positions of forwards and midfielders. This can be clarified by the effects of the positive transfer of abilities and motor skills following the application of specific means of training on the game positions of junior football players.

8. The most relevant results recorded in the formative experiment were those related to the development of the coordinative capacities of junior footballers in game positions, where the

applied experimental program had positive effects aimed at the level of development of the coordinative capacities of the players according to the structure and content of each game position, and this in turn influenced the increase in the level of sports performance of footballers.

9. By recording the performance results related to the sports training of 12-13-year-old junior footballers, it was solved **the research problem**, which aims to optimize the training process of junior athletes by developing skills depending on the game position, which had a positive impact on all indicators of the factors of sports training, here we are mostly talking about the motor, technical and qualitative factors of the game.

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Organizing and conducting scientific research with 12-13-year-old junior footballers allowed us to formulate a series of practical-methodical recommendations such as:

1. At the age of 12-13, the selection of athletes will be organized for game positions, depending on the athlete's motor capacities, their level of technical training, the parameters of the athletes' physical development and others.

2. To begin with, all athletes will be tested in the following compartments:

- motor training,
- technical training,
- coordination capacities.
- work capacity.

3. The content of the motor activity will be analyzed for each position of the game (goalkeeper, defenders, midfielders, forwards).

4. An experimental program will be developed with specific football means for differentiated training depending on the game position, based on the differentiated development of coordinative capacities.

5. The development of coordinative capacities will be carried out in the framework of general and specific motor training, as well as in the case of technical-tactical training, using special exercises with the ball in football game.

6. Differentiated training on game positions through the development of coordinative capacities will be carried out in the proportion of 10-15% of the total volume of a sports training, although this time is much higher, taking into account that the development of the given capacities also takes place during technical training (ball game) and in bilateral game and other types of activity.

7. Once a month, especially during the pre-competitive training period, the level of sports training of the footballers will be tested, differentiated according to the game position, in three basic components of the game, it is about of motor training, technical training, development of coordination capacities.

8. All the athletes participating in the tests will be notified about the recorded results, with an extensive analysis of the recorded results.

9. Following the testing of junior footballers by game position, some changes in game positions of different athletes are possible.

10. The effectiveness of sports training in general will be judged by the performance of the team in official football games and competitions.



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2. TATARCAN C.-A. Study regarding the development of skill through some means characteristic of the football game. In: The Annals of the "Stefan cel Mare" University, Volume XII issue 1, 2019, p.118-125. ISSN – 1844 – 9131, eISSN 2601 – 341x <https://annals-fefts.usv.ro/revista/study-regarding-the-development-of-skill-through-some-means-characteristic-of-the-football-game/>
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## ANNOTATION

**Tatarcan Cătălin-Andrei** “Development of the 12-13-year-old football players skill depending on the specific game position”. Doctoral thesis in education sciences, specialty 533.04. Physical education, sports, kinetotherapy and recreation. Chisinau, 2023.

**Thesis structure:** introduction, 3 chapters, general conclusions and recommendations, references (186 titles), 133 pages of basic text, 5 appendices, 43 figures, 25 tables. The obtained results are published in 13 scientific papers.

**Keywords:** football, juniors, skill, game position, sports training, physical training, technical training, qualitative indices.

**The purpose of the research** consists in researching the effectiveness of skill development in junior footballers according to the specifics of the game position.

**Research objectives:**

1. Analysis and synthesis of specialized literature on the issue of training junior footballers.
2. Researching the level of sports training of junior footballers on a national level.
3. Elaboration of the experimental program of skill development for junior footballers according to the specifics of the game position.
4. Validation of the effectiveness of the application of the experimental skill development program to junior footballers according to the specifics of the game position.

**Scientific novelty and originality** of the research consists in the elaboration and experimental validation of the efficiency of the application of the skill development program to junior footballers according to the specifics of the game position. The practical application of the given program will contribute to the optimization of the training process of junior footballers, expressed by increasing the level of motor and technical training, as well as the quality of the game as a whole.

**Scientific results obtained in research** experimentally demonstrates the effectiveness of optimizing the training process of junior footballers according to the specifics of their game position. The implementation of the proposed experimental program will contribute to increasing the level of sports training both of the players on each individual game position and of the entire team.

**Theoretical significance** consists in the experimental approach to the issue of sports training of junior footballers according to the specifics of the game position. An experimental skill development program was developed for junior footballers according to the specifics of the game position, which contributes to increasing the ethnic and motor level, as well as qualitative game indices.

**The applicative value of the work** emerges from the possibility of implementing the experimental skill development program to junior footballers depending on the specifics of their game position, and the recorded results will be implemented to increase the qualitative level of sports training of junior footballers. The experimental program is recommended to be applied during the secondary selection period of the players for game positions, a period that coincides with the age of juniors.

**Implementation of scientific results.** The results of the research were implemented in the training process of junior football players in a series of teams from the specialized football sports clubs in Romania. They can be applied as methodological material for football coaches at the junior level, as well as in the professional training process of students in higher education institutions of physical education and sports in the "Football" specialty.

## ADNOTARE

**Tatarcan Cătălin-Andrei** „Dezvoltarea îndemânării la fotbaliștii de 12-13 ani în funcție de specificul postului de joc”. Teză de doctor în științe ale educației, specialitatea 533.04. Educație fizică, sport, kinetoterapie și recreație. Chișinău, 2023.

**Structura tezei:** introducere, 3 capitole, concluzii generale și recomandări, bibliografie (186 titluri), 133 pagini text de bază, 5 anexe, 43 figuri, 25 tabele. Rezultatele obținute sunt publicate în 13 lucrări științifice.

**Cuvinte-cheie:** fotbal, juniori, îndemânare, post de joc, pregătire sportivă, pregătire fizică, pregătire tehnică, indici calitativi.

**Scopul cercetării** constă în cercetarea eficienței dezvoltării îndemânării la fotbaliștii junior în funcție de specificul postului de joc.

**Obiectivele cercetării:** 1. Analiza și sinteza literaturii de specialitate pe problema pregătirii fotbaliștilor juniori. 2. Cercetarea nivelului pregătirii sportive a fotbaliștilor juniori pe plan național. 3. Elaborarea programului experimental de dezvoltare a îndemânării la fotbaliștii junior în funcție de specificul postului de joc. 4. Validarea eficienței aplicării programului experimental în dezvoltarea îndemânării la fotbaliștii junior în funcție de specificul postului de joc.

**Noutatea și originalitatea științifică** a cercetării constă în elaborarea și validarea experimentală a programului de dezvoltare a îndemânării la fotbaliștii junior în funcție de specificul postului de joc. Aplicarea în practică a programului dat va contribui la optimizarea procesului de pregătire a fotbaliștilor juniori, exprimat prin sporirea nivelului pregătirii motrice, tehnice, precum și a calității jocului în ansamblu.

**Rezultatele științifice obținute în cercetare** demonstrează în mod experimental eficiența optimizării procesului de instruire a fotbaliștilor junior în funcție de specificul postului de joc al acestora. Implementarea în practică a programului experimental propus, va contribui la sporirea nivelului pregătirii sportive, atât a jucătorilor pe fiecare post de joc în parte, cât și al întregii echipe.

**Semnificația teoretică** constă în abordarea experimentală a problematicei pregătirii sportive a fotbaliștilor junior în funcție de specificul postului de joc. A fost elaborat un program experimental de dezvoltare a îndemânării la fotbaliștii junior în funcție de specificul postului de joc, care vine să contribuie la sporirea nivelului pregătirii tehnice și motrice, precum și al indicilor calitativi de joc.

**Valoarea aplicativă a lucrării** reiese din posibilitatea punerii în practică a programului experimental de dezvoltare a îndemânării la fotbaliștii junior în funcție de specificul postului de joc al acestora, iar rezultatele înregistrate vor fi puse în aplicație pentru sporirea nivelului calitativ de pregătire sportivă a fotbaliștilor juniori. Programul experimental se recomandă a fi aplicat în perioada selecției jucătorilor pe posturi de joc, perioadă care coincide cu vârsta junioratului.

**Implementarea rezultatelor științifice.** Rezultatele cercetării au fost implementate în procesul de antrenament al fotbaliștilor juniori la un șir de echipe din Cluburile Sportive specializate de fotbal din România. Acestea pot fi aplicate în calitate de material metodologic pentru antrenorii de fotbal la nivel de juniorat, precum și în procesul de pregătire profesională a studenților din instituțiile de învățământ superior de educație fizică și sport la specialitatea „Fotbal”.

## АННОТАЦИЯ

**Татаркан Кэтэлин-Андрей.** «Развитие ловкости у юниоров 12-13 лет в зависимости от специфики игрового амплуа». диссертация на соискание степени доктора педагогических наук, специальность 533.04 – Физическое воспитание, спорт, кинетотерапия и рекреация. Кишинёв, 2023.

**Структура диссертации.** Диссертация состоит из введения, 3 главы, общих выводов и рекомендаций, библиографии из 186 наименований, 133 страниц основного текста, 5 приложений, 43 фигуры, 25 таблицы. Полученные результаты опубликованы в 13 научных работах.

**Ключевые слова:** футбол, юниоры, ловкость, игровое амплуа, спортивная подготовка, физическая подготовка, техническая подготовка, качественные показатели.

**Цель исследования** состоит в исследовании эффективности развития ловкости у футболистов юниоров в зависимости от специфики игрового амплуа.

**Задачи исследования:** 1. Анализ и обобщение специальной литературы по проблеме подготовки футболистов юниоров. 2. Исследование уровня спортивной подготовки футболистов юниоров на национальном уровне. 3. Разработка экспериментальной программы развития ловкости у футболистов юниоров в зависимости от специфики игрового амплуа. 4. Обоснование эффективности применения экспериментальной программы для развития ловкости у футболистов юниоров в зависимости от специфики игрового амплуа.

**Научная новизна и оригинальность** исследований состоит в разработке и экспериментальном обосновании программы по развитию ловкости у футболистов юниоров в зависимости от специфики игрового амплуа. Применяя на практике данной программы будет способствовать оптимизации процесса подготовки футболистов юниоров, которое выражается в приросте уровня физической и технической подготовки, а также улучшения качества игры в целом.

**Научные результаты полученные в исследованиях** экспериментально демонстрируют эффективность оптимизации процесса подготовки футболистов юниоров в зависимости от специфики игрового амплуа. Применение на практике предложенной экспериментальной программы будет способствовать повышению уровня спортивного мастерства, как каждого игрока в отдельности, так и команда в целом.

**Теоретическая новизна** данных исследований заключается в экспериментальном обосновании проблемы спортивной подготовки футболистов юниоров по развитию ловкости в зависимости от специфики игрового амплуа. Была разработана экспериментальная программа по развитию ловкости у футболистов юниоров в зависимости от специфики игрового амплуа, которая должна способствовать повышению уровня технической и физической подготовки, а также качественных показателей игры.

**Практическая значимость работы** исходит из возможности применения на практике экспериментальной программы по развитию ловкости у футболистов юниоров, в зависимости от специфики игрового амплуа, а полученные результаты будут использованы для повышения качества спортивной подготовки футболистов юниоров. Экспериментальная программа рекомендуется для применения при проведении селекции игроков по игровым амплуа, период который соответствует юниорскому возрасту.

**Внедрение научных результатов.** Результаты исследования были использованы в процессе тренировки футболистов юниоров ряда команд из Спортивных Клубов Румынии специализированных по футболу. Они могут быть использованы в качестве методических материалов для тренеров преподавателей по футболу на уровне юниоров, а также в процессе профессиональной подготовки студентов высших физкультурных учебных заведений по специальности «футбол».

**Tatarcan Cătălin-Andrei**

**DEVELOPMENT OF THE 12-13-YEAR-OLD FOOTBALL  
PLAYERS SKILL DEPENDING ON THE SPECIFIC GAME  
POSITION**

**Specialty 533.04. Physical education, sport, kinetotherapy and recreation**

**Summary of PhD thesis in Education Science**

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