

THE ROLE OF THE COORDINATIVE CAPACITIES IN THE FORMATIVE STAGE OF FOOTBALL PRACTICE

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Key words: coordinative capacities, football, practice.

Summary: The most favorable periods for the development of the coordinative capacities are childhood, puberty and adolescence, when the body possesses a better plasticity than at adult age. At 6-7 years they are well developed alongside the joint mobility and muscular endurance (local) and the assimilation of a large number of motor skills that ground the development of the coordinative capacities between 6-11 years is possible. This is the most important age period for the acquisition of new motor skills that appear in an integrative way by combining the known movements with new ones.

Introduction

The coordinative capacities generally designate a complex of qualities mostly psychological and of movement that include the capacity to learn quickly new movements, to adjust efficiently and quickly to various conditions specific to different types of activities, sometimes by restructuring the existing movement content.

The specialty literature from the field of football and other games considers the coordinative capacities as being made up of: the learning capacity, the capacity to control and direct a movement and the capacity to adjust and transform a movement.

The performance capacity is largely determined by the psychological and movement aptitudes as a result of the central nervous system's quality. Due to this fact, and to the desire to point out how difficult it is to trace and develop these aptitudes, we consider necessary to deal with them in an analytical manner. The term is relatively new and the specialty literature is scarce. Lately, some authors abandoned the idea of grouping them together in one quality with the generic name of skill. The latter was understood by many authors in the shape of a conglomerate which causes methodological confusions:

-firstly it was understood as a complex motor quality;

-secondly as the individual's aptitude to learn quickly a new movement, from this point of view (in the first stage of learning) being synonymous with the elementary movement ability;

-thirdly as a capacity to quickly restructure the movements in various conditions depending on the concrete conditions of their execution.

If we add the fact that ability manifests itself in a specific manner according to the sport specialty and the execution of every basic or specific movement skill we have before us the entire picture of the complexity of understanding and manifestation of this predominant psychological and movement quality. We emphasize this fact having in mind the massive participation of the psychic concerning its manifestation (complex and specialized perceptions, representations, memory, attention, affectivity, fast-convergent, divergent thinking etc.), alongside other movement qualities as: speed, strength, endurance.

Material-method

Without pointing out the structure of the motor skills system and at the same time the functional relations between its components, we cannot establish precise strategies to develop one ability or another. In other words, for example, to develop balance we need exercises with a more precise addressability which should not interfere with ambidexterity or precision. Otherwise, an exercise which will include all three skills will develop them in a small measure. Due to the reasons mentioned above, the objectives for the development of the coordinative capacities must be extremely precise, and during the training process they must be part of the movement structures specific for every sport specialty, being materialized in fluency, expression, optimal rhythm and in synthesis, movement efficiency.

Another argument for not using the notion of ability, which applies to everything related to human movement, is the fact that, in this form, it refers only to the capacity to work with the hands, capacity which is related rather to the productive activities than the sport ones which are extremely different and divers.

Although the specialists' opinions concerning the coordinative capacities are different, we were able to find some common notes concerning their components. For example, Weineck (1983), quoting Schnabel, considers that from the multitude of factors, three are very important: a) the movement guidance capacity; c) the capacity of movement adjustment and re-adjustment; c) the capacity of movement learning.

R Manno (1982) considers that the coordinative capacities comprise: the learning capacity, the capacity of movement direction and control and the capacity to adjust and transform movement.

Blume (1981), quoted by Manno, considers that the coordinative capacities are organized as a system, conception we completely subscribe to, considering the component interconditionings and its finalities.

The capacity to combine movements allows the determination of the connections between the automatic motor skills, respectively between the elements and technical procedures specific for some sport specialties (sport games, fight sports or gymnastics, water jumps, where there are standard movements).

The capacity to combine movements includes the segmentary coordination, specially the coordination arms-legs-body and ambidexterity (found in athletics, rowing, cycling etc.).

The capacity of spatio-temporal orientation allows position modification and the body's movement in time and space, in relation to a certain field of action. There are two fundamental forms of orientation:

- in relation to objects in movement, in relatively static conditions;
- the body's orientation in relation to mobile or physical reference points.

The capacity of orientation has an important part in the sport games, in which the sportsman must continuously adjust the executions according to his teammates and opponents; the same is valid in the case of fight sports, in which the field of action is smaller. In the case of sport games, the spatial location varies insomuch as the sportsmen have very strong dynamics on the entire field (basketball, handball, football, rugby, etc.) while, in the case of volleyball the sportsmen use only a limited playing field, which facilitates the activation of a maximum strength in jumps.

In technical-compositional sports (artistic gymnastics, rhythmic gymnastics, sports gymnastics, figure skating), the spatio-temporal orientation is intensively used, but automation considerably reduces the part of the visual analyzer in order to consolidate the one of the other analyzers.

The kinesthetic differentiation capacity allows a differentiated, fine control of the dynamic, temporal and spatial parameters of movement. The kinesthetic differentiation capacity intervenes in a decisive manner in all the sports that imply assuming a pose or imitating some elements or processes, as well as in those that are the object of an aesthetic evaluation, insomuch as it conditions the movement or the exercise's precision and elegance. It determines the level of tension

corresponding to intensity, angular motion and acceleration of corporal segments.

The capacity of balance supposes maintaining the body in a certain stable position and rebalancing it after high amplitude movements and solicitations.

The capacity to react supposes fast motor answers to different stimuli. There are:-simple forms-of reaction to known and provided signals; complex forms-in which the stimuli are not known and the range of possible answers is very wide.

The sense of rhythm represents the individual's aptitude to organize the execution of movements in time and space. It is very important in learning the technical processes and elements and the tactical combinations in which we need the variation of the movements frequency without increasing the energy cost.

The capacity to transform movements allows for the motor programme of a current action to be adjusted or modified according to unforeseen or completely unexpected transformations of the situation, requiring even an interruption of movement as in the case of feints. It is closely connected to the capacity of orientation and reaction.

The factors that condition the coordinative capacities are of biological, motor and psychological nature.

In the range of the biological ones there are:

- ✓ the capacity to alternate quickly the excitation processes with the inhibition processes on the cerebral cortex;
- ✓ the transmission speed of the nerve impulses on the afferent and efferent ways (with retroaction role, following the permanent comparison of the result with the intention);
- ✓ the functional quality of analyzers (visual, auditory, tactile, kinesthetic etc.);
- ✓ the quality of the muscle innervation (the muscle's capacity to quickly receive excitation), which determines contraction and then relaxation;
- ✓ the value of the energy sources existing in the body, specially at the level of muscles.

From the group of motor factors we mention:

- ✓ the development level of the other motor qualities (speed, strength, endurance, mobility) and of their combinations;
- ✓ the capacity to anticipate the movement's subsequent unfolding and the proper use of the known technical processes; anticipation is largely determined by the subject's technical repertory;

- ✓ the anticipation of the future evolution of the conditions in which the movement takes place (the opponents opposition, climatic factors etc.) which can be very fast in reflexive form or in the form of the answers learned and adequate for the typical situations that appear in every sport specialty or in the execution of the basic or specific motor skills; these answers are stereotype or movements automated through long practice; the correct, precise representation of the new movements that will be learned;
- ✓ short-term and long-term memory;
- ✓ rapid thinking with all its processes, in convergent and divergent form and specially creative thinking.

The expression of the coordinative capacities is conditioned by the maturation processes, especially of the nervous system and the number of motor skills that the subject possesses. After, the first childhood, the subjects possess a basis of basic and application skills (walking, running, jumping, throwing and catching, pulling, escalation, pushing, climbing, crawling etc.). In this stage the motor and cognitive capacities support one another.

The importance of the coordinative capacities has acquired an increased share in the practice process, once with the expansion of young people's early training in different sport specialties, becoming a priority objective for the first stage of training.

The importance of the coordinative capacities rests in the following:

- largely influences the learning and the improvement of new motor acts and their stability in time;
- favors the efficient execution of motor acts and actions in various conditions;
- determines the execution of movements in optimal conditions of rhythm and tempo;
- favors the superior exploitation of the other motor qualities;
- favors the restructuring of movements in the stages of high performance practice and in the improvement of the basic and applicative motor skills.

Results and discussions

In consequence, in the sportive training there are imposed the following methodical measures and indications for the development of the coordinative capacities:

- The accent of instruction will be set on the mastering of a large number of motor skills

- The exercises must have a high degree of difficulty, even in the first stages of learning; as the subject gets used to the exercises and executes them well, the difficulty of the exercise will be enhanced by increasing the needs regarding the movement precision, movement integral coordination and its components and the spontaneity of situation change;
- In the process of development of coordinative capacities there will be avoided those exercises that cause the subject's contraction;
- The development of coordinative capacities has to be scheduled at the beginning of the training class, after a good warm up, when the organism is prepared for the efforts implied by this objective;
- It has to assure long enough pauses that would permit the complete re-establishment of the effort capacity (optimum intervals);
- The working volume in a class is small, but instead a large number of classes will be scheduled having as purpose the development of different components of coordinative capacities;

The development process of coordinative capacities can be oriented in two directions:

1. The development of general coordination
2. The development of the components of coordinative capacities specific to each sport branch

The reports between these are very close connected, in the sense that the general basis creates the premises of specific coordination. Between these two forms there is a continuum, realized by the gradual reduction of the exercises for general coordination and their replacement with exercises with a specific character. We present as follows a table with the methodical methods for the development of coordinative capacities:

No	Methodical proceeding	Exercises
1	Using some unusual leaving positions for the exercises	<ul style="list-style-type: none">- length jump standing backwards in the direction of its execution;- goalie's plunge from casket;- exit in order to center from draping on the goalpost's beam;- start with the back in the running direction from various positions (sit-up, reclined).
2	Execution of exercises with the unhandy segment (arm, leg)	<ul style="list-style-type: none">- throwing objects (balls), with the hand opposed to the preferred one;- taking-over and shot with the unhandy leg;- executing gymnastic exercises in

		the mirror or opposite to command.
3	Changing the tempo and the execution system	- running in various tempo and with different running variants; - executing attack actions or other game structures in various tempo and with gradual accelerating till the final phase.
4	Limitation of the space where the exercise takes place	-game structures, preparation and dynamic games on reduced fields.
5	Execution of technical procedures and of their series with restrictions	- exercises from other sport games; - exercises for correction of the technique.
6	Changing the execution methods	- jumps and header using various procedures; - various shots to goal, sole pass or with foot outside surface.
7	Execution of exercises by increasing their complexity	- executing additional movements before or after passing, taking over, running, shot; -ball kicking from vole from different positions.
8	Using some different adversary as value and preparation level	- games with weaker or better teams; games having number superiority or inferiority; - using different tactical actions and plans.
9	Execution of exercises in different environment conditions, with different materials and apparatus, installations and simulators	- hand game for possession among trees; - bilateral game (on the field surface there are more medicine balls) - games and exercises on sand.

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Titlu: Rolul capacităților coordinative în stadiul formativ de antrenament al jocul de fotbal

Cuvinte cheie: capacități coordinative, fotbal, antrenament

Rezumat: Perioadele cele mai favorabile pentru dezvoltarea capacităților coordinative sunt copilăria, pubertatea și adolescența, când organismul posedă o plasticitate mai mare decât la vârsta adultă. La 6-7 ani sunt bine dezvoltate și alături de mobilitatea articulară și rezistența musculară (locală) se face posibilă însușirea unui număr mare de deprinderi motrice care fundamentează dezvoltarea capacităților coordinative între 6-11 ani. Această perioadă de vârstă este cea mai importantă pentru achizițioanrea de noi deprinderi motrice care se nasc pe cale integrativă, din combinarea celor cunoscute cu mișcări noi.

Titre: Le role d’aptitudes coordonnées dans le stade formativ de séance de mise en forme du jeu de football

Mots clé: aptitudes coordonnées, football, séance de mise en forme

Résumé: Les périodes les plus favorables pour le développement des aptitudes coordonnées sont l’enfance la puberté et l’adolescence quand le corps a un plus grand plasticité qu’a âge adulte.

À 6-7 années sont bien développés, et, à côté de la mobilité articulaire et la force musculaire (locale) est rendue possible l’assimilation d’un grand nombre de compétences de conduite qui bases le développement des aptitudes coordonnées entre 6-11 années. Cette période est la plus importante pour acquérir de nouvelles compétences de conduite qui

naissent par intégrative, par combiner les connues avec le nouveaux
mouve