INFLUENCING THE INTELLIGENT-MOTOR LEARNING

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Abstract:
Communication is the first and the most important tool for a teacher. In sport domain the team spirit develops through opened and enhanced communication channels between team members. Talking about sport we can set out three specific areas of learning: intelligent learning; motor learning and intelligent-motor learning.

Professional sport, as a social phenomenon, is highlighted by the practitioners’ performances, increased coefficients of relationship between the specific physical capacity, on one hand, and specific intelligence capacity, on the other hand. The aim of this paper is to underline how an efficient communication can improve the learning process and can influence the final result of a team in competitions.

Keywords: learning, language, communication, sport, training, competition


1. General Framework

Communication is the first and the most important tool for a teacher. The appropriate communication for human individual and social existence used in trainings and official games is inter-human communication, defined as “a set of psychological processes specific to humans, the language, in which thinking the conscious component has a particular place.

This form of communication can also be done through non-verbal methods, postural, mimetic and gestural attitudes; non-verbal sounds and so on, which accompany and complete verbal communication. There is also the possibility of demanding and using technical, material means of transmitting informational messages remotely. We can mention here the model of the human
psyche as the model of communication suggested by the theory of communication according to which the entire mental activity is conceived as a network of informational communication in inter-specific sequences (with the others, with the world) and in intra-specific sequences (with ourselves, between the subsystems of the individual psychic system). (POPEȘCU-NEVEANU, 93)

In the general theory of systems, communication of information, respectively in cybernetics, are established ratios of determination and determining between the three fundamental components: substance, energy and information. Thus, in the interpretation of cybernetics, communication represents “any movement of a quantity of information from one element to another within the same system or from one system to another without considering the nature and practical way in which this movement is achieved.” (POPEȘCU-NEVEANU, 93)

The specific form of inter-human communication is the LANGUAGE, “a hyper complex system of social communication fulfilling essential functions in the development and preservation of culture, which marks the transition from the clue to correct and anticipatory signal, to symbols used as substitute for a category of objects, and to signal which is not shaping isomorphically but only signifying the category. The connection between the significance and the signifier, as a referential language function, can only be achieved by the conscious subject who follows the rules of the linguistic system. So the development and use of language, in terms of content, requires the speech as a derived system which belongs to the people or human groups who use language effectively, represented as a system and communication activity using the language. (POPEȘCU-NEVEANU, 93).

2. Communication in training process

In the cybernetic interpretation, communication is defined as a feedback reaction between the transmitter of information and the receiver of information.

Within the dynamic of the relationships which are established between the two essential components of communication, through feedback relation, the receiver becomes a transmitter of information and the transmitter becomes a receiver of information.

An algorithm is required whenever we want to transmit the information and its structure includes:

- The emission of the amount of information;
- The receiver of information;
- The speed of data transmission;
- The storage of information;
- Encoding information;
- The transmission of information.

Between the amount of information received and the one transmitted are settled different percentages whose value tends to identity. The factors that cause disturbances in transmission, reception and storage of the information with
implications upon the percentage of its transmission, define the concept of "background noise".

Among the factors that determine the negative differences between the amount of information transmitted and the one received are: the frequency in the data transmission, the clarity and the transmission of information, the distance between transmitter and receiver, the amount of background noise.

The amount of information conveyed within a system has a negentropic sense because its tendency to increase the system’s organization state by acquiring information, which induces the amplification of the degree of probability regarding predictions upon the behavior of the system. (Nicolau and Bălăceanu - 1974, Golu - 1998, Popescu-Neveanu, 1978)

The negentropy, a concept that highlights the growth of the organization state into a system, is the opposite of entropy that designates the degree of disorganization into a system, expressed by the amount of information with a reversed sign that represents a measure of non-determination, in the subjective plan, and a deviation from the steady state, in the objective plan.

We can observe the following:

- The communication trough language is represented as a system that operates specifically adapting the elements of the information theory;
- Adjusting the content of some concepts of information theory to the particularity of communication through language determines the orientation, organization and efficiency of using language in inter-human communication, in general, and specifically to various social activities such as training and competition in sports games.

The training and the competition in sport games represent a particular system of social activity.

Within this system some communicational relationships are established between the two constituents: the coach and the players / team. (Apostol, 2)

The communication between the two subsystems is done through verbal semantic language and non-verbal ectosemantic language. (Apostol, 2)

The semantic language is accomplished by explanations regarding what, how much and how it is run; where, when and why to run. These issues included in general in verbal communication mean:

- The purpose of the action;
- The execution technique;
- The environment in which the action is used;
- The requirements for an efficient action.

The efficiency of semantic language results from:

- The correspondence between the content of collocations used in explanation and the development of players’ thinking, in the sequence of training levels and competitive age categories;
- The optimization of the ratios between information and redundancy in order to increase the efficiency achieved through semantic language.
The ectosemantic language is represented by the sum of the elements that convey the information expressed through forms of non-verbal communication. These forms are represented by the information transmitted through the feed-back relations settled between the two subsystems represented by:

- Plastic expressions, materialized in: practical demonstrations, gestural and postural attitudes, face expressions, behavior elements;
- Graphic expressions, materialized in signs and graphic symbols.

The efficiency of ectosemantic language results from:

- The correspondence between the model of action presented and the one executed;
- The correspondence between the execution of an action and its purpose.

When using both languages, semantic and ectosemantic, in the framework of training and official games, depending on the category of age, level of training and competition, the team value and the individual value, error corrections have a character of redundancy, in the informational meaning.

All these represent a general reference framework taking into consideration the following interpretations:

- The ectosemantic and semantic meanings of the language used in training and competition are in relationships quantitative and qualitative differenced;
- Between the two components of the referential system, the coach and the players/team, are established different ratios of communication;
- The communication, regardless of the form of the language used, is made from coach to players/team; from players/team to coach;
- In coach to players/team communication is mainly used the semantic language associated with the ectosemantic language, defining the issues and requirements accomplished by the players in the training and official games development;
- In players to coach communication the ectosemantic language associated with the semantic language, depending on certain situations, is dominant.

This general framework of communication allows carrying out:

- The orientation of the motor activity according to the requirements to realize the models settled out in the information submitted by the coach;
- The answers given by the players, who have to comply with all the models and requirements laid down;
- The difference between what is required and what is done highlights the necessary redundancy, respectively the analyses and the corrections which lead to the desired identity achievement.

The quantitative - qualitative ratios established between the subsystems based on semantic and ectosemantic language are determined by:

1. **from coach to players/team:**
   - The amount of information transmitted;
   - The means used at the transmission of information;
• Tone, meaning and expressiveness of information transmission;
• The means used in correcting mistakes.

The subjective elements that underline the efficiency of the appropriate communication in training and game are the following:

➢ from coach to players/team:

• Verbal and non-verbal orientation of execution, in accordance with the purpose of each execution;
• Appreciation on the executions carried out and presentation of the causes that generate errors in execution.

The objective elements that highlight the efficiency of the appropriate communication in training and game are the following:

❖ in training

➢ from coach to players/team:

• Investigations on the quantity and quality of effort that a player makes in order to strengthen his own performance and remove the mistakes committed;
• Recording of the quantity and quality of executions carried out.

❖ in the official games

➢ from coach to players/team:

• Registering parameters that objectify the quantity and quality of the performance specific to game model;
• Analysis and interpretation of the causes which have led to successes and failures in the game development.

3. Organizing the training class

Communication inside sport teams has a certain specificity related with the group maturity, the member’s skills and attitudes, the teacher style or the general atmosphere created in the player’s interaction. Being aware of this various aspects of sportive groups and teams may be helpful on an efficient coaching (Pop, 2010).

When organizing the class training, stimulating attention and individual motivation according to the stage of mental development is accomplished by:

• Announcing the issues;
• Explanations and demonstrations on how to execute various exercises;
• Assessment and evaluation of the performance.

By using the two elements of the language, the permanent impact of communication used by the coach determines the response of the players, through the informational "output" within the settled feedback whose positive value is subjective and objective highlighted through:

• The amount of information received;
- The quality of the performance;
- The accomplishment of the execution requirements.

The subjective elements, that underline the efficiency of the communication, materialized for the coach in the informational output obtained, are made up of:
- The semantic or ectosemantic information requests which are to reduce or cancel the causes that determine mistakes in the execution of the various actions;
- The presentation of observations and acknowledgments with respect to understanding the causes that determine the quality and efficiency of the performances.

The objective elements that highlight the effectiveness of the specific communication in training and official games, by materializing the informational output are:
- in training:
  - Awareness of the ratios between the quantity and quality of execution in accordance with the rules laid down anticipatory;
  - Tendency to achieve identity between the requirements and the objectified performances through the correlation between the codes established by the coach, regarding the assessment and self-assessment of execution;
- in the official games:
  - Observations and feedback on its own performance and teammates performance;
  - Analyzing the possibilities regarding to the game performing model, identity or differences arising between the two and the result obtained.

REFERENCES