

ARGUMENT

DOCTORAL DISSERTATION

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THESIS TITLE: The role of verbal and nonverbal communication in improving performance in U 16 junior basketball teams

Key words: communication, verbal communication, nonverbal communication, athletic performance, junior basketball, attention's mobility, the PONS test.

This thesis consists three main parts (12 chapters) and a bibliography (169 authors), Romanian or foreign authors.

Introduction:

This thesis describes a research that aims to analyze verbal and nonverbal communication in performance basketball young teams and the knowledge of these types of communications by the coaches, in order to increase sports performance. The research falls in optimizing performance's capacity through communication, seen through applying forms of verbal and nonverbal communication in training and competition.

As a team sport, basketball game engages spatial orientation skills, creativity and prognostication and ability of conveying accurate and fast your actions. Distributive attention, rate of reaction, capacity of verbal and nonverbal communication are just some of the qualities that a basketball player should bring together for handling a high performance level of his team.

The research integrates methods of analysis and assessment of athletes nonverbal competence, related to other parameters that influence directly or indirectly the accession of sport performance: the ability of attention's mobility and preferential status.

The research's opportunity is justified by the fact that, so far, according to information gathered under preliminary investigation by the questionnaire for

coaches' opinion, no instruments were used to measure verbal or nonverbal communication competence and it wasn't tried any similar approach to training basketball using techniques and methods aimed to develop the capacity communication aspect of athletes.

Thesis Structure:

The thesis consists three main parts: **the theoretical foundation, the preliminary research and the research itself.**

Part I: *the theoretical foundation*- summarizes the theoretical concepts that underlie the understanding of the issues involved by this thesis. The essential elements around which is jelled the conceptual foundation of this thesis:

- **Motivation for the choice and the theme's high current**
- **Performance Basketball and the personality of the junior athlete U 16**
 - basketball game
 - history and progress of basketball
 - basketball in the 21st century: new directions
 - basketball in Romania
 - Sports performance. Methods used in basketball training in order to improve communication
 - Theoretical components of the concept of sports performance
 - Proration and standardization of sport training, related to the evaluation and selection criteria
 - Increasing methods of communication skills in basketball game
 - Anatomical and physiological and psychological characteristics of age 15-16
 - The personality of performance athlete in basketball team U 16 \
 - Terminological boundaries of the personality concept
 - The main theories of personality
 - Characteristics of athletes' personalities from junior basketball teams
 - **Communication, key factor in team sports**
 - Communication Theories
 - Verbal communication
 - Nonverbal communication
 - The Characteristics of communication in sport
 - **The attention as mechanism with regulatory function of the psyche**
 - The define and manifestations of attention

- The regulatory functions of attention
- The fundamental characteristics of attention
 - **Mental processes specific to the work team in basketball game**
- The basketball team as a dynamic social functional micro group
- Team cohesion and its determinants
- The status and the role of the athlete
- The athletes' roles in basketball team
- The interpersonal relationships and the social active preference
- The sociometric and preferential status
- Psychosocial mechanisms of influence in groups
- Influence and leadership
- Formal leader versus informal leader in basketball team
 - **Conclusions and novelty items in theoretical and applicative plan**

Part II – *preliminary research* – it is the initial stage of practical realization of studying and it aims to determine the current level of knowledge and communication processes in basketball recovery and the analysis of nonverbal communication ability level of athletes participating at this study.

The preliminary research was structured following two hypotheses:

Hypothesis 1: *The capacity of nonverbal communication in relationships influences the basketball team playing.*

Hypothesis 2: *The awareness of the nonverbal communication's role by the coaches favours the training process according to the game.*

In order to fulfil the purpose and to verify the hypotheses it was constructed a questionnaire containing 14 questions, which was applied to a group of 81 basketball coaches, aged between 20 and 57 working at various clubs in Romania.

This stage was also done in order to measure the capacity of nonverbal communication of the subjects participating, the athletes participating at junior basketball teams U 16 representative for Romania, 20 girls and 20 boys. The instrument used was the PONS test (Profile of Nonverbal Sensitivity). The ability of individuals to decode nonverbal elements, so-called nonverbal sensitivity is also presented by applying this “tool” as a profile of each person through several communication processes by various

channels, including scores of specific decoding nonverbal messages (facial expressions, body movements, voice tone) and combination of these elements.

The conclusions of preliminary study:

1. Both hypotheses are confirmed
2. The unanimous opinion of the coaches interviewed about rising basketball team cohesion by increasing communication capacity is worthy of being noticed and it is a starting point in addressing communication phenomena and influences that may occur.
3. Communication capacity is a precious resource which is insufficiently capitalized, that is obvious from the data obtained from the questionnaire coaches opinion. The processes of communication, both verbal and nonverbal, are inherent in basketball game, as in everyday human activity, but their exploration to exploitation at its best can provide important benefits, reflected in performance.
4. A personal viewpoint is that, although the coaches' interest to develop verbal and nonverbal communication techniques in basketball should be felt throughout the ascent of athletes, junior teams require intensive involvement. The argument of this statement is that, athletes' personality is nascent and children and teenagers acquire and integrate easily than adults general and special skills and basketball techniques, too. But, at the same time, optimizing verbal and nonverbal communication could provide valuable results for the senior teams, too.

Part III – *research itself* – consists in analyzing nonverbal competence related to the ability of attention mobility and preferential status index value and the personal contribution of this research is to develop and implement a **set of technical-tactical training** in order to increase the communication skills of athletes who participate to the research. It was conducted through some exercises to stimulate and develop communication between coaches and athletes and athletes in team sports.

Hypothesis 1 : *The capacity of nonverbal communication positively correlated (varies proportionally) with the ability to transfer attention .*

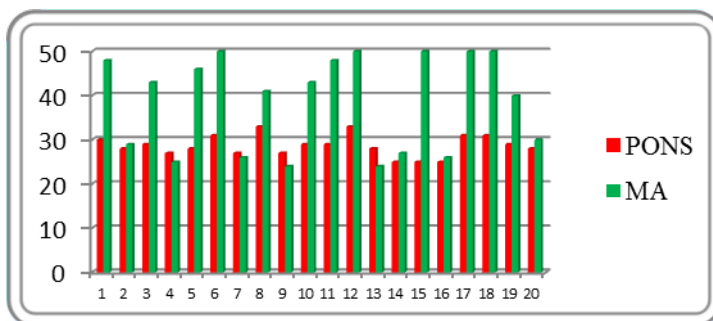
Hypothesis 2 : *nonverbal communication ability positively correlated (varies proportionally) with verbal communication to the Player Index preferential status in the team.*

Hypothesis 3 : *Individual nonverbal communication capacity increases after the introduction of technical and tactical training means developed for this purpose.*

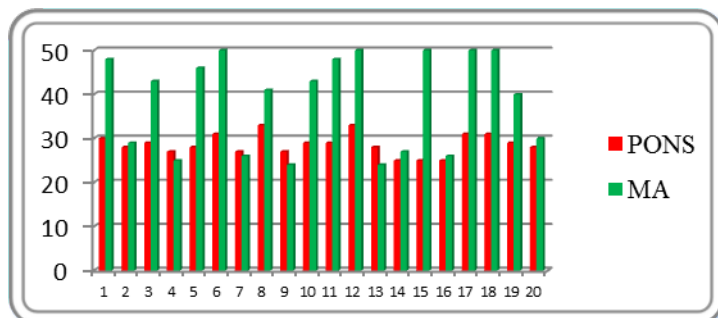
The instrument used in this study are: the PONS test (retest), the Prague mobility test of attention and psycho-metrical analysis, called Moreno, and the subjects of this research remained the same preliminary athletes, components of Romanian junior basketball representative team (U16), girls and boys. The research revealed significant correlations between study variables, so that all the three hypotheses were confirmed:

Hypothesis 1: *The capacity of nonverbal communication positively correlated (varies proportionally) with the ability to transfer attention.*

The scores obtained by athletes at the two samples (the value of nonverbal communication competence and the value of mobility attention capacity) are represented in the charts below:



Correlation scores PONS – Praga girls



Correlation scores PONS – Praga boys

The correlation coefficient Pearson for PONS and MA variables

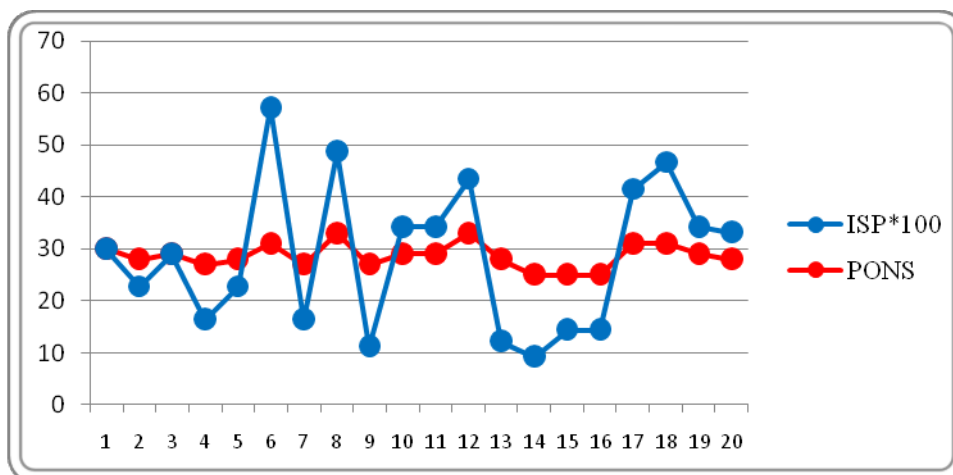
Correlation PONS – MA	
Correlation coefficient Pearson girls	$r_f = 0,606$
Correlation coefficient Pearson boys	$r_b = 0,635$
N	20

The significance values of the correlation coefficient:

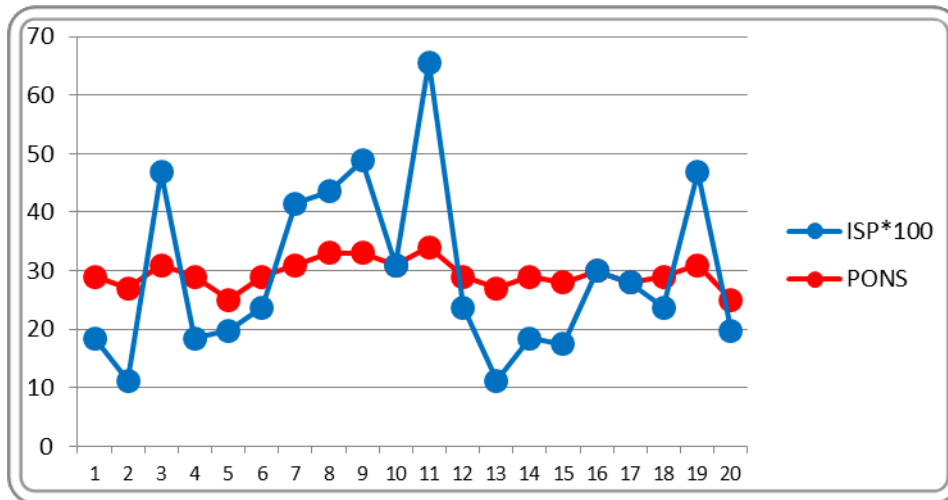
- 1 – perfect negative association
- 0 – lack of any association
- +1 – perfect positive association

Hypothesis 2 : *nonverbal communication ability positively correlated (varies proportionally) to the Player Index preferential status in the team.*

The scores obtained by athletes at the two samples (the value of nonverbal communication and the calculated value of preferential status index) are represented in the graphs below:



Correlationscores PONS – ISP girls



Correlation scores PONS – ISP boys

The correlation coefficient - Pearson- for PONS and MA valuables

Correlation PONS – MA	
Correlation coefficient Pearson girls	$r_f = 0,833$
Correlation coefficient Pearson boys	$r_b = 0,790$
N	20

The significance values of the correlation coefficientis:

- 1 – perfect negative association
- 0 – lack of any association
- +1 – perfect positive association

Hypothesis 3 : *Individual nonverbal communication capacity increases after the introduction of technical and tactical training means developed for this purpose.*

For checking this hypothesis it was applied the test of measuring the ability of nonverbal communication in two different times for the same subjects, in similar circumstances, using the same instrument (the PONS test). The

period between the two tests was about one year; in the meantime, there were implemented technical – tactical ways of optimizing the nonverbal communication developed in this research. The comparative analysis of the nonverbal skill competence proved a significant increase, in the sense that, at the initial test, 5 out of the 40 subjects (3 girls and 2 boys) obtained scores situated at a medium level of nonverbal competence and at the final test all the 40 participants obtained scores situated at a high level of nonverbal competence. The evolution of the PONS scores between the two tests is summarized in the table below:

Scores' variation between the PONS test and the two tests:

Scores' variation	Girls	Rate	Boys	Rate	Total	Rate
Deflation				5 %		2 ,5 %
Stagnation		3 5 %		3 0 %	3	3 2,5 %
Increases by 1 point		2 0 %		1 0 %		1 5 %
Increases by 2 points		1 5 %		3 5 %	0	2 5 %
Increases by 3 points		2 0 %		1 5 %		1 7,5 %
Increases by 4 points				5 %		2 ,5 %
Increases by 5 points		5 %				2 ,5 %
Increases by 6 points		5 %				2 ,5 %

Looking at the increasing value, the statistical analysis revealed a variation of scores between the two tests in the following proportions: 2.5 % from the subjects had scores lower than the initial test, 32.5% remained invariable and 65 % have scores higher than the initial test.

The research limitations:

The difficulties encountered during the course of the study subject and the thesis were both felt in terms of the study sample and in relation to testing and the ways in which they were overcome could represent the research limitations:

- Familiarity with test subjects (the PONCE test – reapplication)
- Possible errors in measurement (desirable, insincere answers)
- Members' fluctuation in teams
- Attendance at trainings and participation at training camps (not less than 100%)
- Uncontrollable external factors.

Conclusions

Knowledge and familiarity with communication in the development process of basketball game is an essential element in directing the team, the interrelationships that exist within groups of players and tactics in order to develop the game. Understanding the phenomenon of verbal and nonverbal communication is essential for the coach.

Communication in basketball is very complex thanks to the factors that interfere with messages through verbal, motor language and bodily attitudes. It is important to know the type of nonverbal communication and the level where this occurs for effective game action, especially when emotions, mood roles are significant, and the situations where verbal communication is unreliable and ambiguous. The level of nonverbal communication and emphasizing the hidden relationships between variables allows us to state that this is an important factor in preparing technical and tactical the athletes.

The novelty in this study lies in the first time, in the possibility of measuring nonverbal communication skills of the players, which means the possibility of

using this element as a parameter in sports activities, for the ones from the basketball court, but also for the ones for evaluation, preparation or training.

- The nonverbal competence measured by the PONS test is a very important element in the work of the team players. When verbal communication is inefficient because of environmental factors or any other language barriers, the players nonverbal competence is beneficial for the interaction and to achieve its purpose.
- Furthermore, nonverbal communication skills can be a criterion for assessing the players, be it about the initial evaluation, be it about the continuous evaluation.
- The usage of nonverbal competence of basketball players as a criterion for setting the posts will optimize training techniques. A player with a high level of nonverbal competence situated in a key-post will be able to mediate the whole process of communication which is necessary for the basketball's action game.

The positive correlation between nonverbal competence and attention's mobility as well as a nonverbal competence and index of preferential status lead to the idea that positive intervening on any of these variables can produce changes in the same way for the others.

- The sociometric status of players is also an important element in developing the individual and team integration through the players' influence and the way he exerts it, willingly or not, to the other players and the whole team.
- Distributive attention, so necessary for basketball players throughout trainings and competitions, is a skill that is able to and should be part of the evaluation criteria of the players.
- The spectrum of skills and abilities analyzed in this paper (nonverbal competence, ability to transfer attention, players' influence upon the whole team), could provide a basis for achieving a desirable psychological profile of the basketball player, allowed for the players' selection to their roster.

The research can be used as a starting point for other scientific studies, having adjacent topics, can be considered an opening for other useful subjects such as the motivational study for basketball players or peculiarities of teenagers' personality , aged 15-16, the junior members of the basketball team.