

INTERACTIVE METHODS IN PHYSICAL EDUCATION AND SPORT LESSONS FOR DEVELOPMENT OF COMMUNICATION SKILLS FOR THE FOURTH GRADE STUDENTS

(Preliminary communication)

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Abstract

The purpose of this study is to apply modern interactive training methods in planned curriculum physical education classes and to determine the impact on the student's communication skills. One of the indicators for quality education is the application of the interactive methods of education. The newest education requirements cannot be implemented by traditional methods in the educational process. Developing communication skills and forming a child's personality requires modernization of the educational process in the elementary school by interactive methods of training. This study indicates a methodology for the application of interactive methods in the physical education and sport lessons for the fourth grade students.

Keywords: *physical education and sport, practical training, sports pedagogues, interactive learning, didactic communication, experimental & control group, Questionnaire*

INTRODUCTION

The application of interactive forms, methods and means of training toward the developing of the communicative skills of the students in primary school age cause an increased interest amongst the pedagogues. The evidence for this is the large number of scientific publications concerning the problem in different fields of science.

Interactive methods (IM) include several concepts: interaction, innovation and interactive education.

Interaction (interact, lat. *inter* – between, and act, lat. *actus* – act, action, performance).

The interaction is an action that occurs as two or more persons have an effect upon one another. It is an event characterized as an exchange action, which resulted in changes in the external behavior of the students. Interaction is enhanced joint activity by mutual actions between the participants in the activity.

Innovation (innovation, lat. *novation* - renewing, renovation). The innovation - renewal, introducing novelty in practice, and finds an expression in new technology and modification in organization and others.

Interactive training in physical education and sport requires continuous feedback with engaging the students in discussions on specific issues related to the educational materials for acquisition. The feedback helps to build substantiated strategies of behavior. The teacher does not only provide knowledge, but also stimulates the students to find their own decisions. Thus provokes the dy-

namic intelligence and helps to retrieve the knowledge about the action mode. Sports pedagogue is not only a source of information. He takes the mediator role in the building of a creative environment with free flow of information reaching the students.

Indisputable fact is that with all the benefits of interactive learning, it creates and develops the student's communication skills, and this is an essential precondition for their successful adaptation later in professional and social life. The traditional training, which is mainly based on monitoring and implementation by the trainees, cannot improve their communicative abilities. In the process of interactive training in physical education and sport lessons the basic aspects of communication refer to the implementing of the unity of teaching and learning, stimulating the motor activity of students and developing the self-control and learning. Adequate perception and understanding of the transmitted educational information is carried out through the verbal communication, accompanied by a non-verbal means of communication (optokinetic characters: gestures, facial expressions, paralinguistic signs: range and tone of voice, technically correct demonstration of the studied motor task and others. The teacher predicts and constructs an interactive communication model for transmitting, receiving, processing, exchanging and controlling the educational information.

The didactic communication in the training of physical education and sport has several main aspects:

functional organizational, substantive and resultant procedural and stemming functions.

The *functional organizational side* includes the organization of communicative model that implements the unity of teaching and learning. In accordance with the characteristics of the training content, objectives, tasks deriving from it, the characteristics of class and the personal preferences, the teacher plans the communicative side of his work. Communicative goals are subject to teaching and serving their implementation. A various tools are used (explanations, demonstrations, information, questions, comments, corrections) to solve the purposes and successfully overcoming the spontaneously occurring communicative situations.

The *content side* of communication is associated with: the provision for content acquiring; formulation of requirements to share the basic information; the technique of verbal and non-verbal information (number of ways and appropriate means for implementation, which will ensure the unity of teaching - learning). An important feature of communication is that it is subordinated to content aspect of teaching and learning, and to the information characteristics. In order to achieve those activities a requirements for collaboration are formulated and designed to successfully acquire the information from the students.

Within the limits of the *procedural-resultative side* of communication a comparison is being carried out between the planned and achieved purposes. Evaluated the practical implementation of a content component and specific skills for the realization of communication (develop orientation ability, the ability to establish contacts, the ability to maintain information communication - rational utilization of information searching, etc.).

Didactic communication is characterized by integrity in general object-object and subject-subjective relationships that make it possible to distinguish the following main functions:

- *Informational* – related with information potential of teaching and learning. Its own content is determined by the content of the training. This attribution helps to

control the envisaged by the program information content in the teaching of physical education and sport.

- *Normative* – established by three main sides of communication. Through communication that is caused by teacher's initiative process of the organizational functioning of the training is guided and overseen (by using the information the student is carrying out a cognitive and practical activity where the teacher is the organizer of the activity) and adjust the relations between them.

- *Developmental* - associated with the students. The aim is to create conditions for individualization and differentiation of education which contributes to their development.

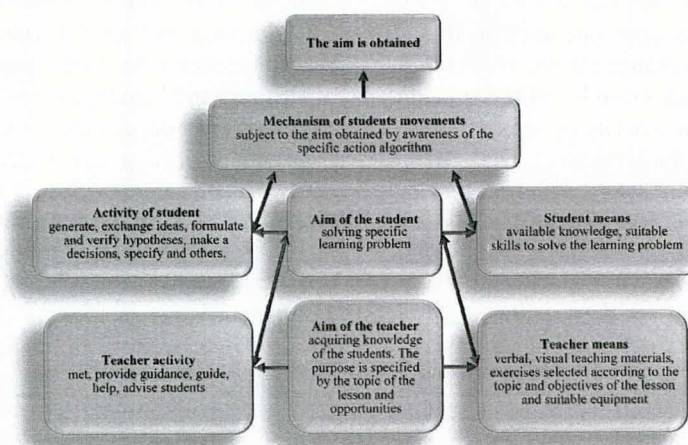
Activating Integrative - implies a common understanding and interaction between the students. This feature of didactic communication is related to the problem-group interactive training. The concept of collaboration appears in the utilization of educational content between the students, between the teachers and the students. The mutual understanding and reconciliation in motor action is achieved when participants in the communicative act are using the appropriate concepts and judgments that provide exchanging of their thoughts about the way of their implementation. The necessary information link between them is established.

METHODS

The purpose of this study is to apply modern interactive training methods in planned curriculum physical education classes and to determine the impact on the student's communication skills. Their selection and skilful combination with the traditional methods are crucial for the effectiveness of the educational process.

Objectives

1. Research and analysis of the common theoretical formulation of the problem;
2. Application of interactive methods in physical education and sport for fourth graders;
3. Study of the effectiveness and impact of applied interactive methods on development of communicative abilities of the students.



Scheme 1. Structure of the interactive learning model

Totally 50 boys and girls participated in the research from "Ivan Vazov" school, Ruse, Bulgaria, divided into two groups: experimental (E gr.) a total of 25 boys and girls and a control group (K gr.) - totally 25 boys and girls.

In K gr. the traditional methods of work are applied, and in the E gr. the interactive teaching is the leading model - the teacher and students are "equal players". The learning process is carried out in a continuous and active interaction between all participants. The constant feedback is existed.

On Scheme 1. the interaction relations of E gr. are presented. It's clearly outlined the free flow of information within the group (class).

The application of IM is based on the simultaneous obtaining knowledge, developing and motor skills and the development of attitudes by putting students in situations in which they can interact and then discuss them on the basis of experience in their implementation. Students from a passive state observers and listeners become active participants in the process of their own learning. Put students in particular situations of constant discussion and expression. Notably within this new environment the interactive training lessons in physical education and sport is particularly important because it helps toward practical experience utilization in a learning environment for creating communication, creativity as well as innovative solutions.

The applied IM in practical training of students in physical education and sport are attractive with:

- ✓ Pragmatic focus on the utilization of knowledge for the planned motor tasks in lessons and their active position;
- ✓ The new vision of the role of initial pedagogue in training - from a primary source of information he became a moderator of the process organizer who provides emotional environment and real conditions for collaborative learning, motor skills and habits;
- ✓ Changed structure of communication in the lessons - not only communication between the teacher and students is intensified, but also the interaction between the both.

In the experimental work three types of IM for teaching and learning were used:

Situational methods

Include the method of specific situations in physical education and sport lessons and in the games performed in the main part of the lesson (movable, relay, sports preparatory actions). The aims of the training: development of communication skills; certain cognitive skills such as memory, attention, thinking, etc.; personal qualities - courage, discipline, responsibility, etc.; movement qualities.

Principles: a problematic situation; orientation in the situation (specific set of parameters); mandatory connection of the analysis of motor task with its practical implementation; active intellectual and emotional in-

volvement of the students; role of the teacher - activity, cooperation, assistance, guidance, not just management. *Stages:*

1. Study the problem when a variant of motor task (analysis) is performing, clarification and selection of alternative, development decision making and demonstration to students who are not only observers, but also commentators as well.

2. Real situation of making a decision. Many ways of motor actions are described, but not just those which are needed to acquire the motor task and the decision making. The student must distinguish between the important from unnecessary information, analyze it and develop proposals for decisions. There is no right decision but a variety of alternative options with different advantages and disadvantages.

Students apply the chosen option for motor action in a specific situation during the lesson, i.e. students apply what they have learned, and thereby develop a new abilities. Participants strictly follow the rules of the game or they are given the freedom to set their own actions within its content.

Discussion methods

Questionnaire, brainstorming, discussion, debate.

The *questionnaire* is related to a specific problem that should be solved. It engages in collective discussion, reduction of disparities, and formulation of a compromise.

Brainstorming (collectively generation of ideas) allows to be offered a large number of ideas for solving a problem in the execution of new motor task in the lesson for a short time. It is used to stimulate the creative activity of the students. The teacher clearly and briefly draws students' attention and set the task. They freely express the ideas or opinions, which are discussed and evaluated, and then choose the most appropriate one for practical fulfillment of the motor task.

Discussion is used as learning method to solve the issues, specify the contradictions and so on. The information exchange is used toward issue reconstruction; alternatives clarification and assessing their agreement on the final embodiment.

Debate - the technique is very similar to the discussion. The common is the technological realization and the difference - specific discussion of motor actions.

Experimental (empirical) methods

A method of experiment, survey and other based on a dialogue. To resolve a problem and to explain the technique of execution the teacher demonstrates and proves with experiment the presence of various motor actions. The teacher creates an opportunity to stimulate the cognitive activity of students. A new knowledge reveals and develops the observation. The students' attention is directed to the establishment of causal relationships between movements, and formulation of conclusions. Toward having safe conduct of the experiment, the per-

formance of each experiment is preceded by instruction sequence of conduction. A necessary requirement for the experiment is to have accessible and visible results to all students. For the purposes of the study on IM impact on student's communication abilities a quantitative method for data collection is used - Questionnaire 1. The survey questionnaire aimed at: the need of communication between the students; between the students and the sports pedagogue; to determine the level of satisfaction with participation in physical education lessons.

The survey toolkit includes 10 "I" topics grouped by type of needs and divided into four main groups (Table. 1.). Attached scale to answer "yes" and "no."

Questions:

1. Do you enjoy physical education lessons?
2. Do you like your physical education teacher?
3. Are there many classmates with whom you prefer to play at school?
4. Do you like to play relay games in physical education lessons?
5. Do you like your sports preparatory and sports games?
6. Do you play optional sports with your classmates in your free time and recess?
7. Do you have any preferences to play in one team with certain classmates in sport or racing games?
8. Do you want to discuss the games results with your classmate's team?
9. Do you participate in sports or sports-preparatory games in extracurricular activity?
10. Do you visit sport competitions to support the participating classmates from your school?

RESULTS AND DISCUSSION

Table 1. Groups of demands of communication and participation in training for Questionnaire

Types of demands	Number of "I" topics
Communication with peers	3, 6, 7, 8, 10,
Communication with sport pedagogue	2
Participation in joint physical activity	1, 4, 5, 9

The important factors that accompanied the work through the experiment are an excellent interpersonal relationships, communication between students and enthusiasm. As a result the ability of students to play actively, with pleasure and to think when they play is improved (Table 2 and 3).

Final data shows the effectiveness of the applied methodology for improving the communication skills of the students in the experimental group. At the beginning the established data from the surveys of the study shows insignificant differences in the percentage of responses of E gr. and K gr.

For example, the questions results of group communi-

Table 2. Baseline data survey of communication with peers

Types of demands	Percentages	
	Experimental group	Control group
3	28,0	25,0
6	34,0	36,5
7	30,5	32,4
8	22,6	21,3
10	18,7	15,4

Table 3. Final data survey of communication with prees

Types of demands	Percentages	
	Experimental group	Control group
3	61,8	35,8
6	57,8	38,4
7	58,2	46,0
8	78,9	39,5
10	82,5	41,3

cation with peers are as follows: question № 7 "Do you have any preferences to play in one team with certain classmates in sport or racing games?" is 30.5% for E gr., against 32.4% for K gr.;

11. Question № 8 "Do you want to discuss the games results with your classmate's team?" The difference between the two groups in the responses was only 1.3%, and for question № 10 "Do you visit sport competitions to support the participating classmates from your school?" is only 3.3%.

At the end of the study period the results showed an improvement in communication skills of students in two groups, but for E gr. are significantly better. The absolute difference for question № 3 is 26%, for question № 8 is 39.4% and for question № 10 - 41.2%. The established data for the rest questions of the same group is similar.

The main criterion for presence of a demand for communication exists: increased interest and attention of the student to the teacher and classmates; proactive manner in physical education lessons; emotional events addressed to peers and sensitivity to attitude of others, which manifests their assessment.

The "I" topics № 1, № 2, № 4, № 5, и № 9 gives an idea of the presence of students needs for communication with teacher in lessons of physical education and sport, and in the participation in collaboration of motor activities.

The established baseline data indicate that the principles of effective communication between the students and teachers as well as among themselves are disrupted (activity, dynamism, teamwork, business modeling, feedback, problematic, rivalry, independence, etc.). This

leads to an insufficient communication; lack of social experience, attention, cooperation, and collaboration in the activity process; lack of opportunities to exercise the initiative in lesson, etc. (Table 4).

Table 4. Baseline data survey needs for communication of students with the teacher and participation in the motor activities collaboration

Types of demands	Percentages	
	Experimental group	Control group
1	68,5	72,4
2	59,6	62,8
4	49,0	51,4
5	43,7	30,8
9	25,8	27,6

Established deliverables in Table 5., shows the increasing needs for communication of students with the teacher and participation in the motor activities collaboration and this is the benefit of E the group.

Table 5. Final data survey of communication needs of students with the teacher and participation in the motor activities collaboration

Types of demands	Percentages	
	Experimental group	Control group
1	85,7	79,8
2	83,4	72,8
4	85,2	62,3
5	89,7	45,6
9	73,5	32,4

This is due to the overall work methodology which include a full and rational use of the possibilities for communication in the organization and conduct of the lesson.

Create favorable conditions for the formation of consciousness in every student. Every student referred toward evaluation of their actions and behavior as well as their classmates and their own behavior. The perimeter of pedagogical communication is expanding.

Change their attitude towards each other. They appreciate and respect the teacher as a specialist and a person. Show themselves as active subjects in the lesson, and share their thoughts, opinions, and estimations. Strengthening the communication with the peers, espe-

cially during the learning game helps to increase their need for motor activities collaboration.

CONCLUSIONS

The crucial for increasing the demand for communication between the students is the behavior of the teacher and his position in relation to each individual student as well as the interaction with the lesson, characterized by intensive communicative activity in the learning process, diversity, improved behavior models and changing activities.

The priorities in the context are: dialogue, mental activity, freedom of choice, positive assessment, polyphony, student's position to create a favorable atmosphere, organization of communication and motivation, changing activities methods, methods of mental and reflex activity and basic principles (clarity of communication, principles of integrity, etc.).

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