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**THEORETICAL AND METHODOLOGICAL AXES OF  
INCREASING THE EFFICIENCY OF THE EDUCATIONAL  
AND TRAINING PROCESS OF BIATHLONISTS**  
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**Abstract.** The article examines the theoretical and methodological aspects aimed at improving the effectiveness of the educational and training process in biathlon. Modern approaches to education and training of biathletes are studied, and key methods and strategies aimed at optimizing their training are identified. Attention is focused on innovative methods that contribute to improving the performance of athletes of this specialization.

**Keywords:** biathlon, training, training, efficiency, technique, preparation, strategies, innovations, athletes.

The need to study this issue is determined by the growing requirements for the level of training of athletes in connection with intense competition on the international sports arena, the non-compliance of the technology of the training process with world standards, and insufficient awareness of coaches in matters of modern science.

The problem of the topic is due to the need for a theoretical understanding of possible ways to increase the effectiveness of the training process in biathlon. The increased level of sportsmanship of biathletes, the complication of conditions and the expansion of the competition program require constant improvement of the training methods of biathlete skiers.

The **purpose** of the work: Determination of ways to improve the effectiveness of sports training in biathlon.

**Tasks:** 1. To study the peculiarities of the system of sports

training in biathlon. 2. To determine and systematize ways of increasing the effectiveness of sports training in biathlon.

The organization of training athletes is a set (system) of interdependent factors (goals, tasks, principles, institutions, conditions of support, organizational measures, training systems) that ensure the process of training athletes to certain achievements [2,3]. At the same time, sports training as a specialized process of physical education is one of the constituent parts of the organizational training system.

Thus, in the system of training athletes, two types of activities can be distinguished: the pedagogical process of sports training and various types of activities aimed at ensuring this process. Growing and constantly changing requirements for the results of the training of highly qualified athletes determine the need for constant improvement of theoretical and practical issues of the organization and management of its functioning and development.

The practice of recent years shows that for the training of international-class athletes, the conditions of the classic coach-athlete duet are no longer sufficient. There is a need for administrators, doctors, and scientists to actively participate in this process. The effectiveness of the process largely depended on the agreement of their actions, clear understanding and performance of their functions by each of the participants. The purpose, tasks, functions, forms of mutual understanding change depending on the stage of preparation, development of organizational forms, conditions, type of sport.

Administrator. Determines general and private tasks of the entire process and its stages, selects and sets tasks for doctors, scientists and other active specialists and organizations participating in each management cycle. Forms the structure of the system and functional connections between parts. Monitors the functioning and results of

activities. Makes the necessary corrections, manages the activities of specialists and organizations participating in training.

Medical workers. They assess the state of health of athletes and the functional capabilities of body systems at the stages of training. Preventive work is carried out to prevent general and special diseases. They provide medical assistance in case of illness. They provide a set of recovery measures. All information about the athlete's condition is given to the coach.

Scientists. Based on the generalization of data from the literature, practical or experience of special studies, new training methods are developed. Periodic examinations of athletes are carried out in order to identify their condition (as a whole or individual systems) under the influence of training. Information is provided to the trainer in a form available for use in order to effectively manage the training process.

The trainer is the central figure in the implementation of the training process. On the basis of the general task, he develops a training plan. Performs pedagogical control during training. Organizes and conducts the pedagogical process of training. On the basis of information received from administrators, doctors, scientists, and pedagogical control data, he manages the pedagogical process of training.

In the most general form, management can be represented as ordering the system, i.e. bringing it into line with the objective regularity operating in this area. At the same time, it is important to consider that the control of the system is carried out by means and mechanisms inherent to this system. In this regard, the dynamic system acts as a self-managed system, which includes two subsystems - controlled and controlling, which together form a control system [3].

An important aspect of the processes of controlling complex dynamic systems is the principle of feedback, according to which successful control can be carried out only if the controlling object will receive information about the effect achieved by one or another of its actions on the controlled object [2].

For rational management in the process of sports training and its further development, it is necessary to provide an approach in which a specific goal and the corresponding processes that occur in the system during the implementation of management tasks would be brought to the fore.

The purpose of managing the training process is to optimize the athlete's behavior, appropriate development of training and preparedness, which ensure the achievement of the highest sports results [3].

The object of management in sports training is the athlete's behavior and his state - operational, current, staged, which is a consequence of the application of training and competition loads, the entire complex of influences in the system of sports training.

Management of the training process involves the comprehensive use of both the capabilities of the sports training system (regularities, principles, provisions, means and methods), as well as non-training and non-competitive factors of the sports training system.

Management of the athlete training system is the regulation of its functioning by developing the general goal and principles of activity; setting tasks in general, before each management cycle, by individual specialists; control over the process of activity and its results, analysis of functioning and introduction of corrections in the nature of functioning, which ensure improvement and development of the system [3,4]. When training highly qualified athletes, a

typical situation is when the student and the coach are faced with the task of achieving the required level of sports results in a specified time, by a precisely determined deadline. The training process must be highly effective and precise, that is, well managed.

In order to change the state of the entire system as a whole, we must change the state of several or at least one of its subsystems. For this, the functional state of all systems and all types of preparedness must be at a certain level and be in an optimal ratio. The task boils down to the fact that, within a specified time and by a precisely specified deadline, the organism should be transferred from the original state to a new specified state. In order for the process to be purposeful, it is necessary to have a quantitative description (model) of the given state [1].

The transfer is carried out with the help of an influence on the body by a specially organized system of influences. The program and the nature of the governing influences are determined by the coach, during independent training, the printed guide, as well as the athlete's personal experience. An athlete-coach system is created, where the coach is the controlling system, and the athlete is controlled.

From these positions, sports training in its most general form should be considered as a specially organized, purposeful regulation (management) of the vital activity of a healthy person's body [3].

Management can only be carried out under certain conditions. The first is the presence of controlled and controlling systems. The second is the presence of direct communication through which commands to action are transmitted. The third is the necessary feedback from the athlete to the coach, which provides information about the state of application of management influence. Fourthly, the

movement of forward and reverse information should be carried out with a frequency sufficient for control.

### **Conclusions**

Biathlon is a complex type of sports activity, it includes two activities that are actually opposite in terms of their psychological composition - ski racing and shooting. Biathletes are characterized by the manifestation of mono-frontal psychological activity aimed at increasing the productivity of their own activity, maintaining the necessary speed of movement, controlling their own technique, regulating physical and volitional efforts in conditions of increasing fatigue, as well as focusing attention, fine coordination of the visual-motor system, etc.

The modern system of sports training is based on the theory of adaptation, theory of management, theory of functional systems, general theory of systems, as well as pedagogy and theory of physical education.

In order to achieve a highly economical process of sports training and planned effects, programs of pedagogical influence and an appropriate control system should be developed. This requires a complex scientific approach, knowledge of the essence and features of sports training, competent specialists (coaches and other participants in the training process) and their coordinated work.

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**INFLUENCE OF SKIING ON THE PHYSICAL  
PERFORMANCE OF YOUNG ATHLETES  
(ON THE EXAMPLE OF A SNOWBOARD)**

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**Abstract.** The work examines the historical and theoretical aspects of the snowboarding training process. In the process of writing the work, the diploma student used the following research methods: analysis of literary sources, pedagogical experiment, pedagogical observation, methods of mathematical statistics.

**Keywords:** snowboarding, physical performance, training process, training structure.

In recent decades, many new types of sports, popular among youth, have appeared in the world. Some of them were quickly included in the Olympic program. One of these types is snowboarding. Snowboarding became widespread in the world in the late 80s. And today it finds more and more supporters. In 1998, at the XVIII Winter Olympic Games in Nagano, snowboarding made its debut as an Olympic sport. Since then, it has officially become an independent object of the theory and methodology of training athletes in Olympic sports.

In Ukraine, this sport began to develop only in recent years. In 1997, the first amateur snowboard competitions were held. It is gaining more and more popularity among Ukrainian youth