



# The classification of technical devices in the training process of athletes playing games

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## Abstract

**Objective of the study** was to examine, summarize, and categorize the technological instruments that enhance athletic performance in competitive sports.

**Methods and structure of the study.** In the course of this research, theoretical methods were employed, including the examination of existing literature, categorization, and the application of structural-functional and systematic approaches. The classification of technical devices used in sports games for different types of training was developed based on the theoretical and methodological works of V.G. Alabin, D.D. Donskoy, I.P. Ratov, G.I. Popov, S.P. Evseev, T.P. Yushkevich, and V.P. Guba.

**Results and conclusions.** The categorization of equipment employed in sports activities entails the establishment of distinct levels of classification.

To summarize the research conducted by Russian experts, it is important to highlight that in the realm of sports games, the fundamental classification levels encompass the structure, form, and purpose of the equipment utilized in the long-term training of basketball players, volleyball players, and football players, among others.

The categorization of equipment allows for the identification of the most effective tools for a specific aspect of sports training. The consolidation of classification features that pertain to the utilization of equipment in the training process of athletes contributes to the development of the theoretical and methodological framework for the chosen sport within the context of its respective training modalities.

**Keywords:** *sports games, training process, types of sports training, technical devices, classification features.*

**Introduction.** The current level of development of game sports requires the search for non-traditional means and methods of training that allow to significantly intensify the process of training athletes at various stages of their skill development, as well as to increase physical capabilities, effectively form motor skills, develop mental processes and master theoretical knowledge about the sport that ensure the effectiveness of competitive activities [2, 3].

The effectiveness of training effects at the stages of long-term training of athletes in game sports is determined by the use of modern technical devices that provide automated performance of motor actions during the game [4, 5, 6].

The classification allows to identify and group by similar features and properties all technical devices used in modern times that ensure an increase in various aspects of the preparedness of game athletes [1, 7, 8]. However, this direction has not been properly reflected in the modern theory and methodology of sports games. Thus, the problem of classifying technical devices for improving types of sports training in game sports is far from its optimal resolution; this fact emphasizes the relevance of the issue under consideration in the context of theoretical and methodological justification.

**Objective of the study** was to examine, summarize, and categorize the technological instruments



that enhance athletic performance in competitive sports.

**Methods and structure of the study.** The following theoretical methods were used in the research: analysis of literary sources; classification; structural-functional and systems methods. Classification is a descriptive method that allows stratifying, and then grouping and generalizing, depending on the types of training, all training devices currently used in sports games. Stratification of training types made it possible to identify classification levels, including the use of a specific training device that ensures the improvement of the physical, technical, tactical, psychological and theoretical components of sports training. The effectiveness of specialized technical devices is reflected in the stability of motor actions under the influence of confusing factors and the opponent's game behavior. The formation of classification levels used in game sports of technical devices for various types of sports training was carried out on the basis of theoretical and methodological works by V.G. Alabin, D.D. Donskoy, I.P. Ratov, G.I. Popov, S.P. Evseev, T.P. Yushkevich, V.P. Guba. The structural-functional method was used as a performance of mental operations describing the boundaries of relations and interrelations between the elements of the structure and the system as a set of stable characteristics of new scientific and theoretical knowledge about the classification of technical devices in game sports. The system approach served as the basis for the formation of a scientific methodology that made it possible to substantiate the classification of technical devices in the theory and methodology of sports games as a system with an integral complex of interconnected elements. As a result of generalizing the results, the system approach made it possible to identify in the methodology its own system, structure, process, function, state, system effect and structural optimization of the formation, development and functioning of technical devices in the process of long-term sports training.

**Results of the study and discussion.** Systematization of technical devices used in sports games involves identifying classification levels. Summarizing the works of domestic specialists, it should be noted that for game sports, significant classification levels are the structure, form of impact and purpose of the technical device used in the long-term training of basketball players, volleyball players, football players, etc. In the modern system of training game athletes, technical devices can be mechanical, electromechanical,

with feedback and urgent information in their structure. The use of a mechanical, electromechanical, with feedback or urgent information technical device in the long-term training of athletes is determined by the form of impact and purpose, which are independent levels of the classification under consideration (see figure).

The next level of classification of technical devices used in the process of training players is determined by the integral, local or conjugated form of impact on the athletes' body. In turn, the form of impact determines the purpose of the technical device in the process of implementing various types of training: physical; technical; tactical; psychological; theoretical. In the process of implementing various types of training in the long-term training of athletes specializing in basketball, volleyball, football and other sports, specialists solve various problems. Technical devices can provide an effective solution to the problems of various types of training in conjunction with traditional approaches used in the training of game athletes.

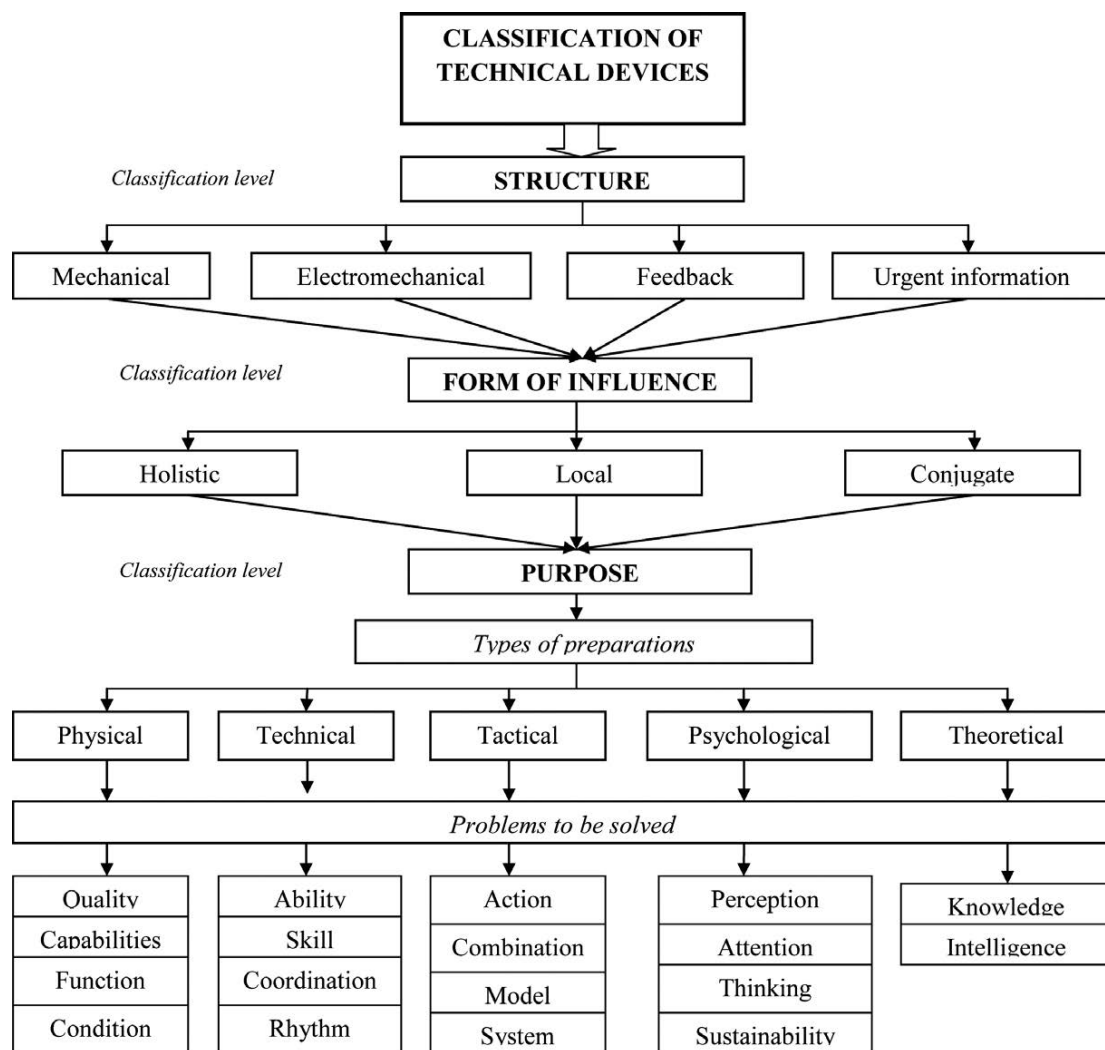
Physical training solves the problems of developing physical qualities and abilities, increasing functional and conditioning abilities. In this regard, it is advisable to use mechanical and electromechanical technical devices that can have a local or associated impact on the athletes' body.

Technical training solves the problems of developing motor skills and abilities, as well as coordination and rhythm of movements when performing a technical technique of the game. To develop motor skills, it is advisable to use technical devices that have a local effect, and for skills, coordination and rhythm of movements - a holistic effect, using mechanical and electromechanical devices.

Tactical training solves the problems of developing tactical actions, studying combinations, specific models and systems of play in attack and defense. For this purpose, holistic effects are applied using mechanical, electromechanical technical devices, as well as with feedback and urgent information.

Psychological training in sports games is aimed at developing perception, attention, thinking and increasing stress resistance. For this purpose, it is advisable to provide associated effects in the process of using technical devices with feedback and urgent information.

Theoretical training ensures the formation of knowledge about the game and the development of intellectual abilities. In this regard, it is necessary to



### Classification of technical devices in sports games

apply holistic effects using electromechanical technical devices and feedback.

**Conclusions.** Classification of technical devices in game sports is necessary so that coaches in their professional activities could know the structure, form of impact and their purpose in the process of solving problems related to improving various types of training. Technical devices serve as applied means that contribute to the effective formation of sports skills of players in basketball, volleyball, football and other types of sports games.

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