

The technical preparation. It leaves basic of the sport training ***La preparación técnica. Parte básica del entrenamiento deportivo***

Zaida Llibre-Ramírez³, Jorge Luis Pichardo-Videaux², Hirbins Manuel Dopico-Pérez³

¹Univ. School of Physical Education Teachers (EPEF). Guantánamo, Cuba.

²Ms.Sc. Assistant Professor. Guantánamo University. Guantánamo, Cuba.

³Dr.Sc. Titular Professor. Guantánamo University. Guantánamo, Cuba.

Email:

marilincg@cug.co.cu

jorgeluispv@cug.co.cu

hirbinsmanueldp@cug.co.cu

Reception date: July 12, 2022

Acceptance date: September 20, 2022

ABSTRACT

The pedagogic process, considered by the experts, to be complex and specialized, demands from all those involved of a scientific address that is able to integrate to all efficiently mainly those that intervene in its process of teaching learning, when teaching and to perfect the sport technique. Its direct interrelation with the physical development is the key to assure the growth of the sport yields. The proposed present, directed to improve their projection and development, he/she offers a description of some methodological approaches found in the contemporary specialized literature that approaches this thematic one, applying for it, diverse methods of the theoretical level of the knowledge.

RESUMEN

El proceso pedagógico, considerado por los expertos, por ser complejo y especializado, exige de todos los involucrados de una dirección científica, que logre integrar eficazmente a todos los que intervienen en su proceso de enseñanza aprendizaje, sobre todo, al enseñar y perfeccionar la técnica deportiva. Su interrelación directa con el desarrollo físico es la clave para asegurar el crecimiento de los rendimientos deportivos. La presente propuesta, dirigida a mejorar su proyección y desarrollo, ofrece una descripción de algunos criterios metodológicos encontrados en la literatura especializada contemporánea que aborda esta temática, aplicando para ello, diversos métodos del nivel teórico del conocimiento.

Keywords

Sport technique; Technical preparation; Training; Sport preparation.

Palabras clave

Técnica deportiva; Preparación técnica; Entrenamiento; Preparación deportiva.

INTRODUCTION

For many, the trend that current performance sports follow is known, a moment that has been characterized by the high sporting results obtained on the one hand and on the other by the research carried out by prestigious sports institutions in the world, which has promoted a explosion in the field of scientific publications in specialized magazines and in texts, in which, based on new methodological approaches, the different ways used to dose the loads of sports training are reflected.

Sports training is a topic widely addressed in the world of sports. With the illustration of its conceptualization we intend to show the diversity of criteria that exists in contemporary literature, many of them from the area of pedagogy and others from the remaining sciences applied to sports. By sports training Fiedler M. (1969) understands the training, education and improvement of all the abilities, knowledge, skills and forms of behavior that each player needs to be able to perform in competition.

According to Harre D. (1973), it is the process based on scientific principles, especially pedagogical, of sports improvement, which aims to lead athletes to achieve maximum performance in a sport or sporting discipline by acting planned and systematically on the abilities. of performance and readiness for it.

For its part, Weineck (1978) defines it as a permanent process of adaptation to physical workloads. For Matveev L. P. (1983), sports training is the fundamental form of athlete preparation, based on systematic exercises, which essentially represents a pedagogically organized process with the objective of directing the improvement of the athlete.

Vittori (1983), cited by García Vázquez (2003), considers that sports training is a complex pedagogical-educational process, which takes shape in the organization of physical exercise repeated enough times and with such an intensity that applied in a consistent manner. Increasingly, they stimulate the physiological process of supercompensation of the organism, and favor the increase in the physical, mental, technical and tactical capacity of the athlete with the purpose of improving and consolidating performance in the event.

On the topic Ozolin, N.G. (1989), considers that the word training is of English origin (training) and literally means exercise, characterized as a process of education, teaching, development and elevation of the functional possibilities of athletes, with a special organization and an annual duration. which lasts for many years, a process in which the hygienic regime, scientific, medical and pedagogical control intervene as parts of a whole; so also the material conditions, all on the basis of certain principles and rules.

For Manno (1991), sports training is a complex process of actions, whose purpose is to teach sports technique and its improvement in a simple and articulated way, individually, in groups or teams, and which has a tendency to develop psychophysical qualities oriented to the achievement of top-level sporting results, in relation to the capabilities of the subject, group or team.

On the other hand, Sánchez Bañuelos (1993), cited by García Manso and collaborators, defines sports training as an activity of constant search for the physical limits to which human beings can reach in the context of sports competition.

For Ranzola A and Barrios J. (1998), sports training is a highly complex activity, since it requires laws, principles and rules, which determine the specificity of the objectives by age and stages of sports development. These, in turn, project the selection and effective use of the means, methods and procedures that guarantee the achievement of sporting form, both individually and collectively, in each significant competition.

Verjoshanski (2002) defines sports training as a pedagogical process that causes an increase in conditional and technical-tactical possibilities, as well as availability for sports behavior (mastery). According to Collazo A. (2006), it is a complex and specialized pedagogical process that requires an integrative scientific direction of each of the components of the teaching-learning process to obtain superior sports results, all aimed at perfecting the skills. physical, technical, tactical, theoretical, psychological, educational potential and the formation of ethical and aesthetic values in athletes with the purpose of achieving an optimal and adequate sporting form, at the desired moment and for the competition.

When analyzing the previous concepts we observe a coincidence when considering training as a pedagogical process, based on laws and principles, which through the planned application of physical loads causes an adaptation and morphofunctional transformation in the athlete's body, and with it, an increase of their physical condition, technical-tactical preparation, among others, which ensure obtaining the state of sporting form and therefore, high sporting results.

It is no secret that the sporting results that a given athlete manages to achieve at all competitive levels are due to the mastery with which the coach and team of advisors have been able to conduct the athlete's preparation. By preparation of the athlete, it is understood, according to Matveev L. P. (1966), the use of the entire set of means (physical, technical, tactical, psychological and theoretical preparation) that ensures the achievement and elevation of the predisposition to achieve sporting results.

Its components included in the previous definition are the basic contents to be incorporated into teaching plans and training plans, which involve not only knowledge, skills and values, but also physical abilities.

Therefore, throughout the training process we must seek continuous improvement of physical performance factors, but also of technical capabilities, which are inseparably associated with them. Weineck J. (2005).

Technique is understood, according to Welford (1969), as a synonym for motor skill or organized and coordinated action that involves the entirety of the sensory chains and the central or motor mechanisms. Ozolin N. G. (1970) expresses that it is the most rational and effective possible way of carrying out the exercises consciously and oriented to the movements and actions of the athlete, aimed at achieving a certain effect in the exercises, related to the deployment of volitional and muscular efforts, with the observance of a certain rhythm and with the use and overcoming of the conditions of the external environment.

Meinel (1979) for his part, expresses that the technique is the rational procedure, that is, adequate and economical to obtain a high sporting result. In turn, Bompá T. (1983) considers that the technique can be considered as the way of executing a physical exercise, pointing out that the more perfect it is, the less energy is necessary to achieve the result.

According to Grosser and Neumaier (1986), it is an ideal model of a sports movement, defined by scientific knowledge and practical experiences, also the realization of the ideal movement to which one aspires, that is, the method to carry out the optimal motor action by the of the athlete. For Manno (1991), technique is a process or set of processes, which are learned through exercise, which allow a specific movement task to be carried out as rationally and economically as possible and with the greatest efficiency.

Weineck J. (2005) states that sports technique is understood as the procedure normally developed in practice to solve a given motor task in the most appropriate and economical way. The technique of a sporting discipline corresponds to a so-called “ideal motor type”, which, despite maintaining the characteristic features of its movements, can undergo modification depending on the circumstances.

Technique in the preparation of the athlete occupies a privileged place. If its parallel development with physical development is neglected, a discrepancy between both components may occur; given that an underdeveloped technique prevents the athlete from transforming their growing physical potential into greater performance specific to the modality.

The sports technique is characterized by its structure, which is composed of the spatio-temporal structure, whose characteristics are related to the temporal characteristics, length and route characteristics, speed characteristics and the temporal dynamic structure, whose characteristics are associated with the optimal acceleration path, braking and acceleration forces, partial impulse coordination, and rotation-turn moments.

DEVELOPMENT

Without a doubt, technical preparation occupies an important space in the preparation of the athlete. Its objectives must be aimed at: achieving adequate learning and improvement of sports motor skills in the chosen modality, the assimilation of new and more complex actions related to the development of sports motor skills, and specialization in competitive exercises specific to the sport. chosen sport.

Therefore, the training of the technique must be governed by principles that adequately guide its development. The basic methodological principles for training the technique, according to Weineck J. (2005), are:

- A specific technique requires specific training measures.
- A specific technique has to be preceded by specific preparation in terms of physical condition.
- The teaching of technique should precede the teaching of the most difficult movements, in order to avoid excessive difficulties in learning these movements.
- Given that the identification details of the movement is important to learn or perfect a sports technique, observation skills and knowledge about the technique must be included in the training process.
- The speed of the technique learning process depends on the repertoire of motor experiences (availability of partial programs), that is, prior training of the fundamental techniques facilitates the learning process.
- The need for precise motion corrections requires the use of objective control procedures (video recorders, film, etc.).
- Participation in competition too early, with a technique that is not yet sufficiently stabilized, can negatively influence its development: in certain circumstances, the stress of competition can polish erroneous motor structures.
- The process of learning the technique should take place without long interruptions between training sessions, otherwise the effectiveness of the training decreases.
- Technical training should be carried out in a state of recovery; The number of repetitions of the exercises has to be adapted to the physical conditions and the ability to concentrate: a fatigued CNS does not allow optimal coordination.
- Technical skill constantly depends on the level of physical performance factors and their oscillations and changes in relation to macrocycles and microcycles. Changes in physical conditions therefore produce changes in the motor system.

Special attention must be paid to the work of technique in children and young people who practice sports, in which the work of coordination of movements is an essential condition for technical work. In children, technique work must be characterized by the learning of a large number of motor skills, and not with specific techniques. The repertoire of movements is consolidated more by imitation and experience than by reflection. Once satisfactory results have been achieved in this first part (5-6 years), it is necessary to continue taking advantage of the good level of motor performance acquired to expand the repertoire and experience of movements (for example, gymnastics, swimming), with which they would be The conditions have been created to start training with children between 7-8 years old in these sports, within the long-term process focused on high-performance sports. Thus, at this early age, appropriate technique training for children can be practiced on a selective basis, on the basis of general multilateral training provided.

This age, between 9-10 years old, is the best for motor learning, it is especially appropriate for general basic training in technique. However, the designation of “best age for learning” does not imply that motor sequences, series of movements and complicated regulation processes can already be trained in it, just as they are trained at later times by Ungerer (1970); Tschiené, (1976).

For all the aforementioned age groups, the ideal learning method is the “demonstration-imitation” or imitation method.

In puberty (11-14 years of age), a stage of the athlete's life in which, as part of sexual maturation, rapid longitudinal growth of the children's limbs and trunk occurs, it is recommended to consolidate known techniques, in instead of developing new techniques, since the latter could exceed the capabilities of young people. Coordinating skills must continue to be worked on, as an essential condition for the adequate assimilation of the technique.

At ages above puberty (over 15 years old), techniques with high and maximum coordination difficulties can be taught, which are normally learned quickly due to the development of coordination abilities.

Many authors agree that, to acquire new sports motor skills, levels of development of physical abilities, psychological qualities and morpho-functional characteristics, among others, it is necessary to resort to the use of the most diverse training methods.

By method, according to Klaus and Buhr (1969), we mean a system of (methodical) rules that determines the classes of possible operating systems that, starting from certain initial conditions, lead to a certain objective.

In this sense, Klingberg L. (1972) considers that the method is a systematic series of actions that indicates, the structure of the methodical, a gradual, stepwise procedure, it is therefore, a series of

logically structural steps or operations, with which Different actions are carried out to achieve a specific objective.

On the other hand, Korolev F. F., Gmurman V. E. (1978) express that, through the method, the internal regularities of the development of that activity in which it is applied are reflected and the peculiarities of the process are discovered.

For Labarrere G., Valdivia G. (1988), the method is a system of rules that help us achieve a specific objective and that also pursue the best results. The method presupposes the presence of objectives, a system of operations, the use of means, the existence of an object and achieving a result.

According to Forteza A., Ranzola A. (1988), the method is the interrelated form of work between the pedagogue and the student, and which are aimed at solving the teaching tasks.

By method, according to Ruiz Aguilera A. and Col. (1989), we mean certain forms, types and ways of regulating the physical load, with the aim of provoking in the individual the development of muscular strength, the speed of their movements or other capacities, whether conditional or coordinative.

On the other hand, Weineck J. (1994) states that training methods are usually presented as practical procedures developed methodically in order to satisfy the proposed objectives. For Barrios J., A. Ranzola A. (1998), the method is the most effective way or path to achieve something. According to Collazo A. (2002), the method is a pedagogical-didactic component that allows the logical and internal structuring of the teaching content. In terms of sports training, the method constitutes a category that allows the methodical organization of the physical load in close relationship with the proposed objectives.

It practically determines the quality of the training process. The implementation of methodological principles is essentially based on the use of teaching methods. It is important that the coach masters as many of them as possible, as they facilitate the pedagogical work. It is also essential to point out that a method alone does not solve learning. The professional level of the trainer will determine the selection and application of the methods, allowing them to be related, integrated and knowing until when to apply them, according to their advantages and disadvantages. Barrios-Ranzola (1998).

The selection of methods is determined by some factors, among them: age, sex, level of physical preparation, skill development, habits and skills of the athlete, professional level, technical-tactical mastery of the sport by the athlete. of the coach, the media, programs, manuals, facilities, teaching implements, etc.

Among the systems of methods existing in the sports training process for the development of motor actions are:

1. Teaching methods: they are used to create new sports motor skills. According to Matveev and Novikov (1977), they are structured into three groups: the sensory-perceptual (visual, verbal, auditory and proprioceptive), the verbal (explanation, ordering, description) and the practical.
2. Practical methods are subdivided for teaching: they allow and help in the learning, consolidation and application of a given sports technique in practice, among these we can mention: analítico asociativo sintético, sintético, de repetición lenta del ejercicio, de repetición estándar del ejercicio, repetición variado del ejercicio.

Practical methods for improvement: they are used to consolidate, perfect, reach the higher phase of the motor habit, to be able to execute the motor action in conditions of tactics, opponents, competition and, depending on the sports, allow variability. According to Barrios-Ranzola (1998), to achieve these objectives within the preparation, the following methods are used: standard, variables, combined, games and competitions. Educational and psychological intervention methods (example, convincing, persuasion, punishment or sanction, interactive talks, autosuggestion, mental training). On the other hand, among the means used for the development of the technique, there are general means and special means.

In general technical training, priority corresponds to multilateral training. It is, therefore, about acquiring a large number of simple isolated techniques or motor skills, which can, in turn, favorably influence the learning process of specific and complex techniques, while increasing the number of training contents. applicable. Consciously acquiring a new technique usually means learning some unfamiliar movements. As components of the technique you want to learn; These are combined in a specific way with other components of skills already acquired, according to Harre D. (1976).

For the different modalities this means, on the one hand, that an extensive repertoire of movements must be taught, covering several modalities, and, on the other hand, that the so-called fundamental exercises of the modality itself, important for the learning many other exercises. In athletics, these would be basic forms of running, jumping or throwing, in which important basic elements are worked on, such as, for example, the well-coordinated use of the jumping leg, the driving leg and the arms, with training content such as races with jumps of different extension, jumps with one leg, etc., and as preparation for the exercises that constitute our objectives.

specific training of the technique is based on the motor experiences of general technique training. If in the latter the priority corresponded to the acquisition of a large number of motor skills (techniques),

now the number of specific techniques for each modality is reduced, focusing the learning process on the improvement of a global movement and its different parts. constituents. This is also reflected in the choice of training methods and content, and in the choice of methodological guidelines.

According to Martin (1977), the development of complex sports-motor performance, and therefore also that of technique, usually takes place in three stages:

- The stage of multilateral development: here priority is given to the expansion of coordinative capacities, and therefore the repertoire of movements and motor experience, as well as the acquisition of basic technical skills (in gross coordination). A subsequent stagnation of technical development is often explained by a too narrow basis of modality-specific coordination, according to Blume (1978).
- The general preparation stage: the focus here is on the progressive polishing of sports techniques, related to general physical preparation.
- The stage of specific preparation (specialization): this is where the consolidation of a technique adapted to individual possibilities, optimal, inaccessible to deviations and automated, predominates, based on a specific physical preparation focused on the specific discipline.

On the other hand, there are factors that influence the learning of the technique, which are necessary to know in order to take them into account when planning it. Among these factors we can mention the type of learning (visual, cognitive, kinesthetic), motivation, attention and concentration capacity, learning capacity, types of laterality, understanding capacity, intelligence, imagination capacity. , the momentary psychological state, the external conditions of the learning situation that is expressed in the personal relationship with the teacher, learning environment and weather conditions; as well as motor experience and repertoire of movements.

The orientation of sports training is governed by the methodological ordering of the principles, teaching methods, and matters relating to the detection and correction of errors that, together with the teaching of motor actions and the education of conditional and coordinative abilities, are They organize pedagogically for their development, taking into account the stages or phases of learning and tactical technical improvement:

Among the learning phases to take into account in sports technique training, according to Weineck J. (2005) are:

1. Teaching and understanding phase: this is where the athlete is informed about the movement they have to learn, and they develop the necessary conditions to devise an action plan. To do this, they are helped by their motor experiences, their initial motor level and their skills of observation and understanding, often closely linked to the previous factors.

2. Coarse coordination phase: these are the first experiences in practical execution, together with simple verbal indications, they are the main source of information in this phase. At its conclusion, the motor task is already mastered in its gross structure.
3. The forms of manifestation corresponding to this stage are an exaggerated and partly erroneous use of force, interruptions in the course of time, angular execution of the movement, wrong movement rhythm (too slow or too fast) and lack of precision in the movement, depending on Rubinstein (1958).
4. Fine coordination phase: at the end of this exercise and correction phase, the motor task is already mastered in its fine structure. The corresponding forms of manifestation are adequate use of force, suitable rhythm and volume of movement, and more intense flow of movement. The increasing precision of movement is basically explained by the increasingly better understanding of verbal and other types of information.
5. Phase of consolidation, improvement and variable availability: in this phase the finest coordination is consolidated, which can also be applied successfully in difficult and unusual conditions. The partial automation of the movement allows the athlete to focus their attention on the critical points of the motor sequence. The corresponding symptoms are precision, constancy and harmony of movement.

The physiological particularities of the exercise are decisive for the stages of learning. According to Matveev and Novikov (1977), these physiological regularities give rise to the following three stages of learning:

1. Initial study or initial learning stage: the fundamental task being to provide the most complete and accurate representation of the motor action that is the reason for learning. Also lay the foundations to establish self-control and self-regulation mechanisms.
2. Stage of in-depth study or deep learning: its task is specified in the practical domain of motor action and corresponds to the concentration phase of the nervous centers, typical of the technical execution to be carried out by athletes. As a result of the repetitions and multiple representations, the technique is gradually mastered, the movements acquire accuracy, excesses disappear, becoming more and more homogenized, which generates less energy expenditure.
3. Consolidation and improvement stage: this is where obtaining the motor habit, consolidation, improvement to reach a higher form, skill, is guaranteed. The athlete must reach a level that allows him to adapt technical execution in variable conditions, with maximum efficiency.

For the training of the technique in the long-term process, the criteria set forth regarding its joint training with the coordinative capacities are valid.

Learning technique occupies an important place in the training of children and young people, therefore, it continues to be perfected throughout life, based on the technical capabilities and skills already acquired.

In the annual cycle, the training of the technique lasts all year, emphasizing its work in the periodic structure from the beginning of the preparation, during and ending it, achieving greater improvement as the fundamental competence of the technique approaches. season.

It is valid to recognize the attention that must be paid by groups of specialists to the methodological work in each sport. In the process of learning the technique, the methodological guidelines are established based on the fulfillment of the learning objectives. In this sense, Martin (1977) states that, in the initial teaching of a motor representation, and in the subsequent execution of the gross form of the technique, the priority corresponds to the “assimilation exercise”, which must be preceded by a brief explanation, a practical demonstration or both as indicators of the objectives.

As a characteristic of the fine coordination phase we can point out, in addition to the conscious training of the desired technique, the assimilation of increasingly detailed movement instructions and corrections. The more exact and clear the representation of the movement, the better the detail indications are used for its improvement. Thus, cognitive abilities play an increasingly important role in the learning process.

In the phase of stabilization, variable availability and technical improvement, methodological guidelines focused on improving detail, adaptation to unusual conditions and the search for the ideal motor solution for each individual predominate (polishing personal style).

CONCLUSIONS

The systematized theoretical references allow us to consider that, to achieve high sustained sporting results, continuous improvement must be sought in the factors of physical performance, but also in the technical capabilities that are inseparably associated with them.

It is important, for the sake of the development of sports technique, to keep in mind several aspects that ensure its progression, including the stages of its development, the phases of its learning, the basic methodological principles and the methodological guidelines.

BIBLIOGRAPHIC REFERENCES

- Barrios J. & Ranzola A. (1998). Manual para el deporte de iniciación y desarrollo. Ciudad de la Habana, Cuba: Editorial Deportes.
- Bompa T. (2003). Periodización. Teoría y Metodología del entrenamiento. Versión digitalizada. Barcelona. Editorial Hispano Europea S.A.
- Collazo A. & Betancourt N. (2006). Teoría y Metodología del Entrenamiento Deportivo. Tomo I y II. Versión digitalizada. ISCF Manuel Fajardo.
- Donskoi D., Zatsiorski V. (1988). Biomecánica del ejercicio. Moscú. Editorial Raduga.

- Forteza A., Ramírez E. (2007). Planificación del entrenamiento deportivo (de lo ortodoxo a lo contemporáneo). Versión digitalizada. Sevilla, Argentina. Editorial Guanceulen.
- García Manso J., Navarro Valdivielso M. & Ruiz Caballero J. (1996). Bases Teóricas del Entrenamiento Deportivo. Principios y aplicaciones. Versión digitalizada. Madrid, España: Editorial Gymnos.
- Harre D. (1983). Teoría del Entrenamiento Deportivo. Ciudad de La Habana: Editorial Científico Técnica.
- Hoopman A., Lames M., Letzeier M. (2005). Introducción a la Ciencia del Entrenamiento. Versión digitalizada. Badalona, España. Editorial Paidotribo.
- Issurin V. (2012). Entrenamiento deportivo. Periodización en bloques. Versión digitalizada. Badalona, España. Editorial Paidotribo.
- Matveev, L. P. (1983). Fundamentos del Entrenamiento Deportivo. Versión digitalizada. Moscú: Editorial Raduga.
- Martin D. y col. (2004). Metodología general del entrenamiento infantil y juvenil. Versión digitalizada. Barcelona, España. Editorial Paidotribo.
- Morales A. (s/a). Preparación del deportista. Dirección y Rendimiento. Versión digitalizada.
- Ozolin N.G. (1988). Sistema contemporáneo del Entrenamiento Deportivo. Ciudad de La Habana, Cuba: Editorial Científico -Técnica.
- Platonov V. N. (2001). Teoría General del Entrenamiento Deportivo Olímpico. Versión digitalizada. España: Editorial Paidotribo.
- Romero R. Becali y A. (2014). Metodología del entrenamiento deportivo. La Escuela Cubana. Versión digitalizada. La Habana, Cuba. Editorial Deportes.
- Rubalcaba Ordaz L., Loaiza Castillo W. (2001). Metodología y Deporte. Consideraciones básicas. Versión digitalizada. San Juan de los Morros. Venezuela.
- Weineck J. (2005). Entrenamiento Total. Barcelona. Editorial Paidotribo.
- Zatsiorski V. M. (1989). Metrología deportiva. Moscú. Editorial Planeta.