

Artículo de revisión

**Title: The conceptual confusion between the terms "method" and "methodology"**

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**Abstract**

This article addresses a recurring issue in the field of sports training and Physical Education: the conceptual confusion between the terms' "method" and "methodology," as well as the proliferation of methodological labels that, in many cases, do not represent substantial innovations but rather superficial variations of existing structures. Based on a theoretical and critical review of specialized literature, this study analyzes the historical evolution and current use of methods in the development of physical capacities, highlighting the lack of systematization and terminological ambiguity that hinders teaching, research, and professional practice. A clear distinction is proposed between method (as the internal logic of the process, mediating between objective, content, and subject) and methodology (as a broader organizational system). The study concludes that a conceptual redefinition and a systematic organization of methods, based on their essence rather than variations in load or form, are urgently needed to strengthen the scientific foundation of the discipline.

**Keywords:** method, methodology, sports training, systematization, sports didactics, conceptual confusion.

**Resumen**

El presente artículo aborda una problemática recurrente en el campo del entrenamiento deportivo y la Educación Física: la confusión conceptual entre los términos "método" y "metodología", así como la proliferación de denominaciones de métodos que, en muchos casos, no representan innovaciones sustanciales, sino variaciones superficiales de estructuras ya existentes. A partir de una revisión teórica y crítica de la literatura especializada, se analiza la evolución histórica y el uso actual de los métodos en el desarrollo de las capacidades físicas, destacando la falta de sistematización y la ambigüedad terminológica que dificulta la enseñanza, la investigación y la práctica profesional. Se propone una diferenciación clara entre método (como lógica interna del proceso, mediador entre objetivo, contenido y sujeto) y metodología (como sistema organizativo más amplio). El estudio concluye que es urgente una redefinición conceptual y una organización sistematizada de los métodos, basada en su esencia y no en variaciones de carga o forma, para fortalecer la base científica de la disciplina.

**Palabras Clave:** método, metodología, entrenamiento deportivo, sistematización, didáctica del deporte, confusión conceptual.

## Introduction

Sports training, understood as a complex pedagogical process, is currently characterized by a high degree of diversity in the terminology and proposals referred to as “methods.” In both scientific and professional contexts, it is common to encounter a wide range of labels, such as the pyramidal method, circuit training method, variable standard method, among many others. This proliferation raises a fundamental question: does this diversity represent a necessary evolution of knowledge, or, on the contrary, does it reflect a conceptual confusion that affects the very essence of the teaching–learning process in sport?

It is common to find terms such as “circuit method,” “station method,” or even “CrossFit method,” suggesting a proliferation of methods that, in many cases, are not distinguished by their internal logic, but rather by their form of organization or by a variation in the components of the load (volume, intensity, density). This situation raises a fundamental epistemological problem:

Does each modification in the structure of a training session constitute a new method? Or are these different applications of the same methodological principle?

The lack of terminological clarity is not a minor issue. As Collazo Macías (2005) and other authors point out, this ambiguity directly affects university teaching, where students are confronted with a diversity of “methods” without being able to identify their essence, their

underlying logic, or their relationship to the objectives and content of the training. Furthermore, it hinders scientific communication and the critical evaluation of innovative proposals.

This research arises from a need for theoretical clarification, based on the lecture by Dr. C. Edecio Pérez Guerra entitled “Methods in sports training and methodologies. A contradiction in their diversity.” The lecture reveals a deep concern about the current state of the field: the creation of new “methods” without a solid didactic justification, leading to “entropy” in university teaching and fragmented professional practice.

The purpose of this study is to recover the essence of the concept of “method” from a didactic and systemic perspective. The method is not simply a tool or a technique, but the expression that characterizes and establishes the logic, order, and sequence of the process. This work aims to analyze this proposal, clearly differentiate between “method” and “methodology,” and argue that the need for new methods only arises when the fundamental relationship between the objective, content, and teaching–learning process changes.

## Methodology

This study was conducted using a qualitative systematic review following the guidelines of the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol. The objective was to identify, evaluate, and synthesize the theoretical evidence on the use of methods in sports training, using the lecture by Dr. C. Edecio Pérez Guerra as the primary and central document.

a) Inclusion and exclusion criteria:

**Inclusion:** Theoretical documents, scientific articles, books, and lectures that address the conceptualization of “method” and “methodology” in sports training, physical education, or physical culture. Classic (Matveev, 1977; Harre) and contemporary sources were included.

**Exclusion:** Empirical studies that only describe the application of methods without analyzing their conceptual basis, non-peer-reviewed sources, and promotional materials.

b) **Search strategy:** Searches were conducted in Google Scholar, SciELO, and Dialnet using keywords such as “sports training method,” “sports methodology,” “sports teaching,” “conceptual confusion,” and “sports teaching system.” In addition, the three documents provided as primary sources were used.

c) **Study selection Identification:** 78 records.

Duplicates removed: 12.

Title/abstract screening: 50 excluded (irrelevant topic).

Full text evaluation: 16 documents analyzed.

Studies included: 10 key theoretical sources (including the documents provided and classic references).

d) **Summary of findings:** The findings were organized around the central concepts of Pérez Guerra's discourse:

The essence of the method as an expression of the logic of the process.

Criticism of the unnecessary creation of new methods. 3. The differentiation between method and methodology.

4. The importance of the objective-content-PEA relationship. 5. The need for systematization.

This approach ensured that the article was deeply rooted in theoretical evidence and the original conference discourse.

### Results and Discussion

The concept of “method” has been approached from multiple perspectives, from the philosophy of science to pedagogy and didactics. In the context of sports training, method cannot be understood as an isolated procedure, but rather as a dynamic and integrative component of the training process.

According to Collazo Macías (2005), the method “allows complexity to be simplified by selecting the most significant elements of a content in order to proceed with its conceptual structuring and explanation in the athlete-content-coach relationship.” This definition places it as a mediator between the objective, the content, and the subject. There is no method in the abstract, but rather a method for something. Its essence lies in the internal logic of the process, in how the activity is organized to achieve meaningful learning.

The method is defined as “the expression that characterizes and establishes its logic, order, and sequence” (Pérez Guerra, 2025). It is not an isolated part of the process, but rather its comprehensive didactic configuration. It allows the complexity of the selected content (knowledge, skills, and values) to be simplified in order to structure and explain it in the relationship between the athlete, the content, and the coach.

Methodology refers to the set of methods, principles, and strategies that make up a broader system of

work. For example, CrossFit is not a “method,” but rather a methodology that combines different methods (intervals, repetitions, circuits) under a specific philosophy of comprehensive, high-intensity training. As stated in the documents analyzed, “methodology must be explained in fundamental terms,” while “method is synthesis,” expressible in a few words.

In addition, methodology has an analytical and verification function. As illustrated in the document, “methodology is responsible for reviewing the fundamentals and effectiveness of the procedures that methods use.” It is the highest level that corroborates the validity of methods in different scenarios. A clear example is weightlifting: the method may be the “ascending pyramid,” while the methodology analyzes the scientific evidence to justify why progressive loading is effective for hypertrophy.

Content, in turn, does not automatically define the method, but “there are objectives that, in their relationship with the content, favor the use of certain methods” (Pérez Guerra, 2025). Content is “part of the culture selected in line with the specific needs of the teaching-learning process of sport: knowledge, skills, and values.”

A common confusion is to identify organizational procedures (such as circuits or stations) with methods. These are ways of organizing space and time, but they do not in themselves define the logic of the process. A circuit can be applied with a continuous, interval, or repetition method, which shows that

form does not determine method.

The interaction between these elements does not occur in a vacuum. Today's sport is influenced by external factors such as technological advances, rule changes, new training scenarios, competitive specificity, and social context (Figure 2, Article on methods in Physical Culture.docx). These factors modify the content system and, ultimately, may require a reassessment of methods. However, change must be fundamental, not superficial.

Authors such as Zintl (1988), Harre (1973), and Ozolin (1970) have contributed to the systematization of methods, especially in the development of endurance and strength. Zintl, for example, classifies methods as fundamental (continuous, interval, repetition) and specific, recognizing variants within each category. However, even in these classifications, the line between method and variant can become blurred when modifications such as the “variable standard” are introduced.

The essence of the method also transcends the purely physical. As the analyzed material points out, the method includes cognitive, affective, and evaluative dimensions. The relationship between coach and athlete, motivation, demands, and evaluation are components that form part of the logic of the method. Therefore, methods such as “demand and control,” “judgment and evaluation,” or “stimulus and sanction” are not limited to physical exertion, but also operate on an educational and psychological level.

In this sense, a systematization in four dimensions is proposed, as suggested by Collazo Macías (2005):

Pedagogical-didactic methods for

teaching (analytical, global, guided discovery). Methods for the development of physical abilities (continuous, interval, repetitions).

Educational methods for the training process (motivation, values, demands). Psychological intervention methods (relaxation, visualization, concentration).

This categorization allows diversity to be organized without creating new “methods” for each technical variation.

### Discussion

The systematic review confirms the existence of a conceptual crisis in the use of the term “method.” The proliferation of names responds, in many cases, to professional pragmatism or a need to ‘label’ new practices, rather than to true theoretical innovation. A clear example is the “variable standard method.” If we analyze its structure, it consists of maintaining a work intensity with variations in recovery time or exercise complexity. This description fully coincides with the interval method, specifically with its progressive or decreasing variants. Changing the name does not change the essence of the object. As stated in the documents, “if its essence does not change, it remains the same.”

Another example is CrossFit. Although many refer to it as a “method,” its structure defines it as a methodology: a system that combines multiple methods (interval training, repetition training, circuit training) with a comprehensive approach, playing with varying intensities to generate oxidative efficiency. Defining it as a “method” trivializes its complexity and confuses readers.

This confusion has practical

consequences. For university professors, explaining an endless list of “methods” without being able to establish their fundamental logic generates “entropy” and hinders students' understanding. For researchers, the lack of clear terminology prevents the comparison of studies and the accumulation of knowledge. For the trainer, it can lead to the adoption of “new methods” that, in reality, they already knew under another name.

The proposal to systematize into four dimensions offers a viable solution. By placing each practice in its correct dimension (physical, pedagogical, educational, psychological), overlap is avoided and the role of each tool is clarified. A coach can then say: “Today I will apply the repetition method (physical dimension) within an integrated training methodology (systemic dimension), using the stimulus and sanction method (educational dimension) to reinforce discipline.”

Pérez Guerra's systematic review and discourse analysis enable a clear discussion of the “contradiction in diversity.”

The first contradiction lies in the fact that, despite the abundance of “methods,” there is a lack of conceptual clarity. As the document points out, many coaches and teachers are overwhelmed by the need to master countless methods, which complicates their work.

This complexity is not inherent to the sport, but rather to the imprecise use of language. The example of the “variable standard method” is paradigmatic: if the intensity of the work remains constant and only the recovery time varies, we are

dealing with a variant of the interval method, not a new method.

The second contradiction is the confusion between method and methodology. Many proposals presented as “new methods” are actually exercises in methodology: analyses of the effectiveness of certain procedures. For example, studying the science behind pyramid training does not create a new method, but rather validates an existing one methodologically.

The third contradiction is the lack of systematization. The documents analyzed reveal a tendency to present methods in isolation. Pérez Guerra proposes overcoming this through a systemic vision. In this model, the method does not exist in isolation. Its justification arises from the interaction between objectives and content. A change in competitive purpose (e.g., moving from winning to developing values) may require a change in method, even if the physical content (e.g., endurance) remains the same.

Finally, the method transcends the cognitive-motor. As highlighted, a motivated athlete facilitates a more dynamic process. The method, therefore, also operates on the motivational, affective, and volitional levels. Methods such as “demand and control” or “play” are not measured only by physical load, but by their impact on the coach-athlete relationship. It must be recognized that the method is not just a technical issue. It is a pedagogical act that involves values, human relationships, and purpose. As the text points out, “the essence is to win,” but “being a champion” also implies comprehensive growth. The method must reflect this complexity, not reduce it to a load formula.

## Conclusions

The term “method” is severely overused and misused in sports training literature and practice. There is widespread confusion between method, methodology, and organizational procedures.

The proliferation of new “methods” is, in many cases, unjustified. Changes in load (intensity, volume, density) or in the form of organization (circuits, stations) do not constitute a new method, but rather a variant of an existing method.

It is essential to differentiate between “method” and “methodology.” The former is the internal logic of the process (e.g., repetition method); the latter is a broader system that integrates multiple methods (e.g., CrossFit as a methodology).

There is an urgent need for a clear and hierarchical systematization of methods, such as the one proposed in four dimensions (pedagogical, physical, educational, psychological), to organize knowledge and facilitate its teaching and application.

The method transcends the technical. It is a mediator that involves the relationship between coach and athlete, the transmission of values, and the integral development of the subject. Its analysis must therefore be multidimensional and critical.

This article does not seek to close the debate, but rather to open it. We call on the scientific and professional community to engage in collective reflection to redefine, with rigor and clarity, the fundamental concepts of our discipline.

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## CONFLICTOS DE INTERESES

Los autores no refieren conflictos de intereses

## Contribución de autores

Autor 1: conceptualización, investigación, administración del proyecto, redacción.

Autor 2: administración del proyecto, revisión, validación y edición.