



# Dynamics of the main types of scientific articles in the journal "theory and practice of physical culture" (1925-2022)

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## Abstract

**Objective of the study** was to reveal the features of the dynamics of the main types of scientific articles in the journal "Theory and Practice of Physical Culture".

**Methods and structure of the study.** In the course of scientific work, a typology of publications, statistical observation, and systematization were carried out. The sample of scientific articles amounted to 21,388 items published in the journal TPPC for 1925-2022. Four periods were identified in the dynamics of quantitative indicators of publications.

**Results and conclusions.** Dynamics of scientific articles published in 1925-2022 in the journal TPPC, has the following features: 1925-1965 characterized by a steady growth of scientific publications; 1966-1987 fix their consistently high number; 1988-2003 are distinguished by a pronounced decline in the number of scientific publications; 2004-2022 significant growth in the number of scientific articles. In addition, significant features of the dynamics of articles with a theoretical, descriptive and applied orientation are highlighted.

It is noted that the low level of hardware for scientific research in the field of physical culture and sports is one of the main brakes on their development in modern conditions.

**Keywords:** *scientific article, typology of articles, dynamics of publications, journal "Theory and Practice of Physical Culture", A.V. Sedov.*

**Introduction.** The process of considering the problems of scientific support of the sphere of physical culture and sports through the prism of publications of the journal "Theory and Practice of Physical Culture" (TPPC) is carried out not for the first time [4, 6, 7, etc.]. Such an approach is predetermined:

- high scientific status of the journal;
- objective representativeness of the problems considered in the journal;
- long log history.

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**Results of the study and their discussion.** The first step in the process of achieving the goal of the study was the selection in the entire array of publications of the TPPC journal of articles that have a predominantly thematic scientific focus, that is, containing data on scientific theoretical and experimental research conducted by their authors. In this regard, articles of a purely informational nature were not considered (publications from the sections "Chronicle", "Scientific life", etc.), articles containing "secondary information" / information about information (sections "Criticism and Bibliography", "Reviews and abstracts", etc.), as well as works with journalistic and representational orientation.

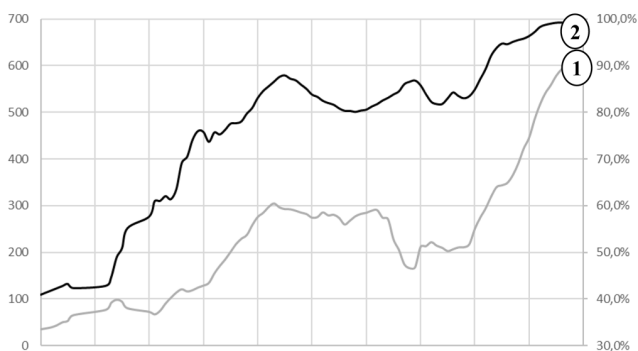


Figure 1. Dynamics of the number of scientific publications (1) and their share (%) of the total number of publications (2) in the journal "Theory and Practice of Physical Culture" (1925-2022)

The final sample of scientific articles published in the TPPC journal for 1925-2022 amounted to 21,388. In their dynamics (Fig. 1), the following features can be distinguished:

- 1925-1965. characterized by a steady growth of scientific publications;
- 1966-1987 fix their consistently high number (250-300 pcs.);
- 1988-2003 are distinguished by a pronounced decline in the number of scientific publications;
- 2004-2022 significant growth in the number of scientific articles.

Of particular note is the increase in the share of scientific articles (from 40% to 99%) in the total array of TPPC publications (Fig. 1).

The second stage of the study consisted in the typology of scientific articles. Three main types have been identified:

- "Theoretical" - articles with a predominantly theoretical focus (22.9% of the total sample);

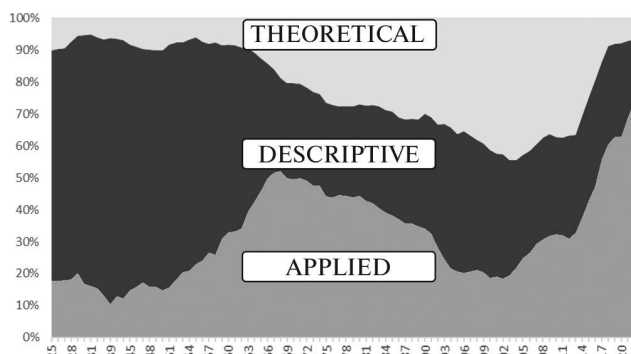


Figure 2. Dynamics of the ratio of shares (%) of various types of scientific articles in the journal "Theory and Practice of Physical Culture" (1925-2022)

- "Descriptive" - articles with a predominantly descriptive focus (38.3%);
- "Applied" - articles with a predominantly applied orientation (38.8%).

Consideration of the dynamics of articles within the above types (Fig. 2) showed that from 1925 to 1955. the dominant segment of scientific publications (70-80%) were articles of a descriptive type. And only in the second half of the 1950s, especially after the appointment of A.O. Romanov, the share of applied articles begins to grow gradually. So, in order to increase the growth rate of this process in the journal in 1961-1962. 53 articles are published under the heading "Methods of Scientific Research".

However, only after Arkady Vladimirovich Sedov (1928-1987) became the editor-in-chief of the TPPC in 1966, painstaking and fruitful work began on the introduction of experimental and applied approaches into the practice of research in the field of sports [1]. The share of articles in this direction for more than twenty years (1966-1987) was 40-50%. At the same time, the segment of theoretical articles increased to 20-30%, while the share of descriptive works decreased to about 20-30%.

All undertakings by A.V. Sedov were supported in 1968 by the new leadership of the State Committee for Physical Culture and Sports under the Council of Ministers of the USSR, which was headed by S.P. Pavlov. He and his highly professional team knew that the highest achievements in Olympic sports are possible only through pedagogical know-how technologies, the creation of which is impossible without innovations, their appearance, in turn, is unthinkable without the use of effective instrumental techniques.

Understanding the importance of experimental

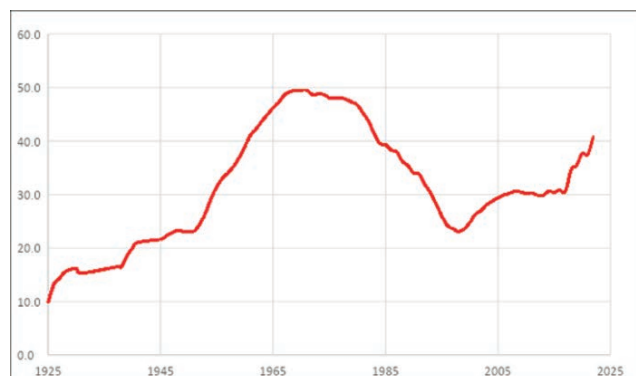


Figure 3. Dynamics of the share (%) of instrumental research in the array of applied articles published in the journal "Theory and Practice of Physical Culture" (1925-2022)



studies, A.V. Sedov directed the journal's publishing policy not only to publish, first of all, articles, the empirical basis of which was data obtained using scientific instruments, but also to actively promote this direction. For example, many TPPC covers were decorated with photographs with scientific equipment.

In 1966-1981, in applied articles in which devices were used, the share of publications reached the level of 45-50% (Figure 3). In other words, every fourth scientific article of the journal had an instrumental and applied focus. It seems to us that this level of substantiation of the problems of sports was one of the significant factors that predetermined the appearance in 1969-1988, the phenomenon of the "Golden Age" of domestic sports, when Soviet athletes won all the Olympic Games.

The collapse of the USSR led to an increase in negative phenomena. In the 1990s, the share of articles with an applied focus decreased to 20%, while the segment of theoretical works increased to 40-50% (Figure 2). This happened not due to objective reasons, for example, a multiple increase in the level of theorization of sports science, but because a huge number of scientists "suddenly" rushed to defend their dissertations and they urgently needed publications in a journal with a high scientific status. So, for 1992-1999, in the specialty 13.00.04, three times more dissertations for the degree of Doctor of Pedagogical Sciences were defended than in the entire Soviet period, starting from 1937. At the same time, by 2022, the share of articles with a theoretical orientation "fell to the other extreme" - decreased to 6-8% (Figure 2).

Of course, one cannot but rejoice at the almost spasmodic growth in the share of applied publications in 2004-2022, from 20% to 75%, but the fact that about 70% of the work from this array was performed without the use of instrumental techniques is frankly alarming (Figure 3). After all, this is approximately the level of the 1950s, when the main tools of researchers in the field of physical culture and sports were a stopwatch, a tape measure and an adding machine.

These moments are not the fault, but the misfortune of scientists. The question of the possibility of using modern instrumental methods by domestic researchers in the field of physical culture and sports was raised not today, not yesterday [3, etc.], and not even the day before yesterday [5, etc.]. This is a permanent problem that requires constant attention from the management structures of the industry.

The problem of instrumental control of objective

indicators of training activity is significant not only for sports. As shown back in 1925 in the fundamental work "Theory of Physical Culture" G.A. Duperron, it is archival for all other forms of physical culture [2].

I would like to note that in the last five years (2018-2022) there has been a positive trend of a still unstable increase in the share of articles of instrumental-applied type up to 40%.

**Conclusions.** Dynamics of scientific articles published in 1925-2022 in the journal TPPC, has the following features: 1925-1965, characterized by a steady growth of scientific publications; 1966-1987 fix their consistently high number; 1988-2003 are distinguished by a pronounced decline in the number of scientific publications; 2004-2022 significant growth in the number of scientific articles.

The publication of applied articles is characterized by the formation in 1966-1981, stable-high segment with a level of 40-50%, about half of which were articles of an instrumental and applied nature.

In the 1990s, the dynamics of articles of a theoretical orientation is characterized by its rise to an all-time high level of 40%, which was predetermined by subjective reasons.

Since the mid-1960s, there has been an increase in the share of descriptive articles up to 20-30% (the only exception was the 1990s).

The low level of possibilities of using hardware for scientific research in the field of physical culture and sports is one of the main brakes on their development at the present time.

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