

Conclusion. Thus, our proposed ranking system for modern pentathlon competition participants, in general, meets the requirements of the ideology of this sport and is metrologically more correct than the official one.

List of literature used

1. Sevdalev, S. V. Modeling of competitive activity of highly qualified athletes specializing in modern pentathlon / S. V. Sevdalev // World of Sports. – 2021. – No. 2 (83). – P. 54–59.
2. Asinkevich, R. Peculiarities of manifestation of sexual dimorphism in highly qualified athletes specializing in modern pentathlon / R. Asinkevich, S. V. Sevdalev, E. P. Vrublevsky // Theory and practice of physical culture. – 2022. – № 1. – P. 17–19.
3. Starchenko, V. M. Sports metrology a textbook / V. M. Starchenko // Minsk : RIVSH, 2021. – 368 p.
4. Sevdalev S. V. The structure of the competitive activity of the world-class female pentathletes / S. V. Sevdalev // “The place and role of physical culture in modern society”: IV All-Russian Scientific and Practical Conference. Sevastopol : Sevastopol State University, 2020. – P. 124–129.
5. Sevdalev, S. V. Individualization in the preparation of qualified female athletes specializing in complex all-around events / S. V. Sevdalev, M. S. Kozhedub, E. A. Aleinik // Proceedings of the Gomel State University. F. Scorina. – 2021. – № 2 (125). – P. 31–37.
6. Narskin, G. I. Specificity of competitive activity of highly qualified female athletes specializing in modern pentathlon / G. I. Narskin, S. V. Sevdalev // Applied sports science. – 2021. – № 1 (13). – P. 4–11.

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STRUCTURAL-CONTENT MODEL OF COMPETITIVE CULTURE OF ATHLETES, SPECIALIZING IN MODERN PENTATHLON

In the article, within the framework of the activity approach, a theoretical model of the competitive culture of athletes specializing in modern pentathlon is developed and presented, its constituent components and elements are introduced. The goal and systemic tasks of the competitive training of the pentathlete have been determined. The structural elements of the thinking activity and executive components of the athlete's competitive culture are introduced. The following is presented: structural-functional model of the need-motivational sphere of the competitive culture of the pentathlete; structural-content model of the competitive knowledge of the pentathlete; the composition of the competitive skills of the pentathlete; the structure of the pentathlete's physical fitness.

At present, modern pentathlon is one of the most intensively developing applied types of sports all-around in the Republic of Belarus. Belarusian athletes are usually among the ten strongest athletes in the world. The greatest success was achieved by the representatives of the women's modern pentathlon. Further maintenance of the reputation in the post-doping era is possible through the development of theoretical models of competitive culture, competitive activity, competitive training, adequate diagnostic tools, development of pedagogical principles, means and methods of training athletes within the framework of activity, systemic and cultural approaches. In other words, by connecting a previously little demanded pedagogical resource, the possibilities of which are huge.

Today it is obvious that in order to achieve a high result in modern pentathlon, a rational combination of all elements of the athlete's competitive culture is necessary [1; 2; 3].

This article is devoted to the development of a model of the competitive culture of athletes specializing in modern pentathlon.

The purpose of the study: to develop a structural-content model of the competitive culture of athletes specializing in modern pentathlon.

Research methods. The set of methods used to achieve the stated goal included: theoretical analysis and generalization of data from scientific and methodological literature, modeling.

Results of the study and their discussion. The purpose of competitive training of a pentathlete is to form a competitive culture of an athlete. Its functional purpose is to ensure the competitive adequacy of the pentathlete, by which we mean the ability of an athlete to solve competitive tasks as successfully as possible at the motor and intellectual levels.

In general, competitive culture is a systemically organized unity of competitive thinking and knowledge, competitive needs and motives, competitive skills, physical fitness in a competitive exercise united by competitive activity [4; 5]. The listed elements are combined into two components of the competitive culture: *mental activity component and executive component* (Fig. 1).

When all the components and elements of the competitive culture of an athlete are formed and systematically ordered, then in the course of his competitive activity he becomes a champion.

A champion is an athlete who has mastered an adequate way (culture) of competitive activity and successfully implemented it in competitions, which allowed him to fully implement the competitive idea, demonstrating the highest competitive achievement among the participants [6].

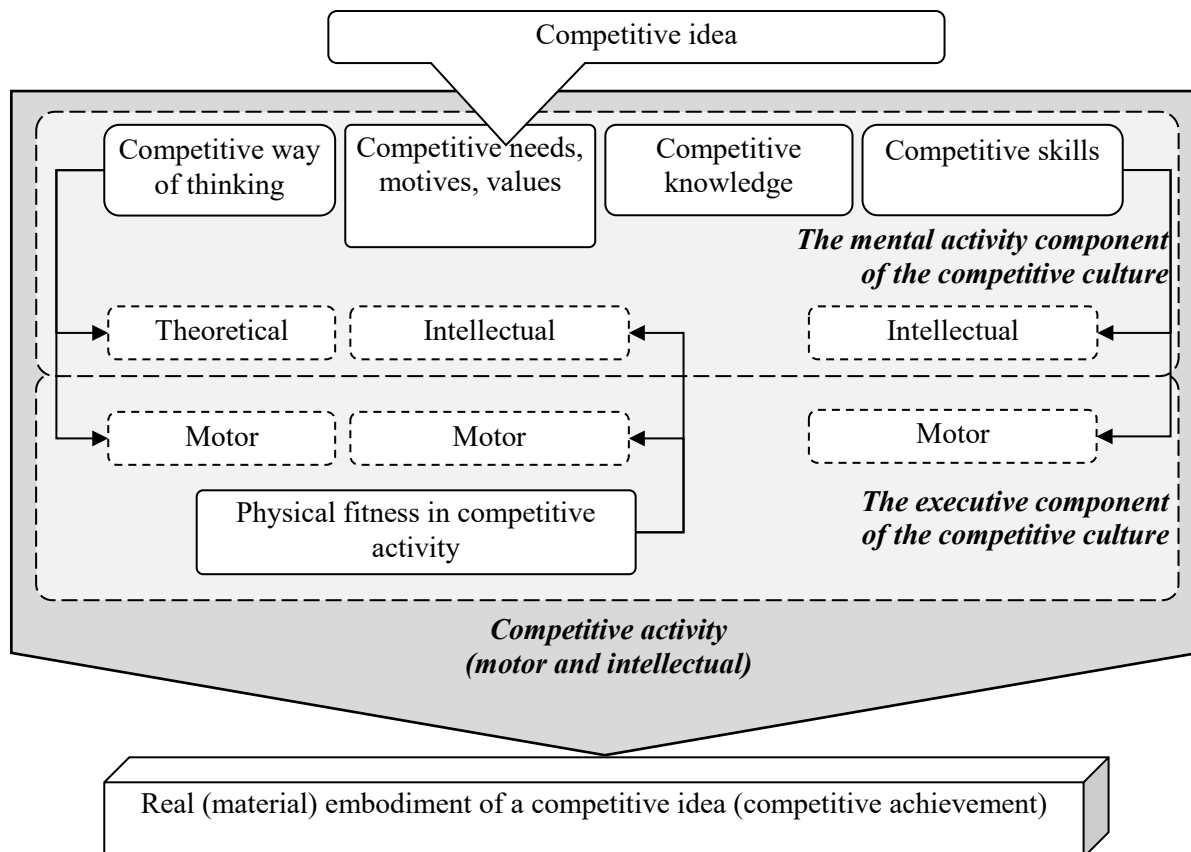


Figure 1 – Athlete's competitive culture model

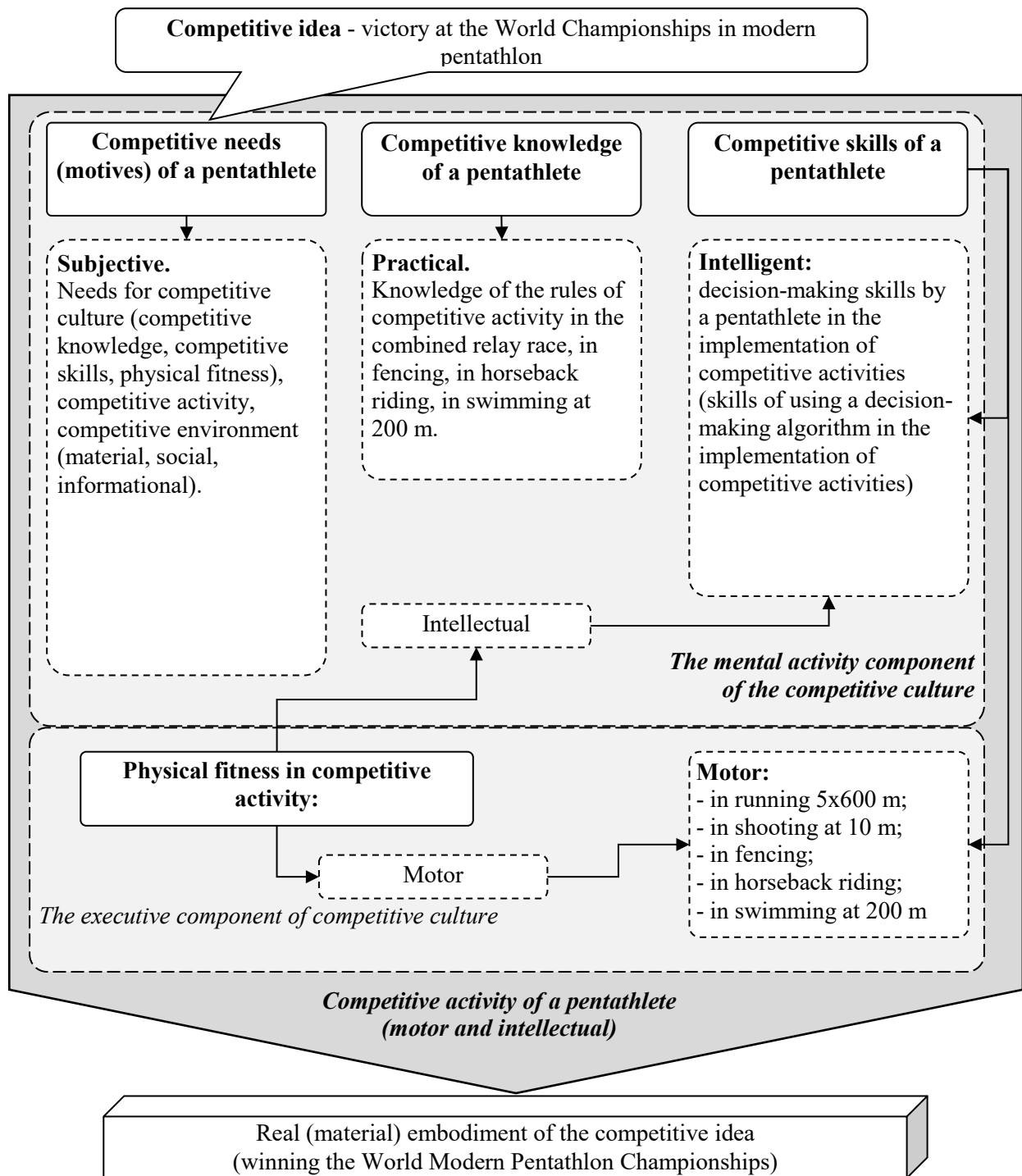


Figure 2 – Competitive culture model of a pentathlete

Let's try to unfold and concretize the model of competitive culture in relation to modern pentathlon and get a model of the competitive culture of a pentathlete (Fig. 2).

The need-motivational sphere of the pentathlete's competitive culture performs the function of a "driving belt" that ensures his active and interested participation in competitive activities. With its help, the competitive idea controls the behavior of the pentathlete.

The need for competitive activity generates the need for a body adequate to the requirements of competitive activity, the need for competitive culture as a way of competitive activity and the need for a competitive environment [7].

To materialize a competitive idea, an agent of competitive activity (pentathlete) needs a means of activity, which is his body (musculoskeletal system). At the same time, the body must comply with the anthropometric requirements imposed by competitive activity. Hence the need for the anthropometric component of the pentathlete's physicality arises.

The need for competitive activity also generates the need for a competitive culture as a way of competitive activity. This, in turn, gives rise to the need for the components of a competitive culture: the need for competitive skills, the need for competitive knowledge, the need for physical fitness. In addition, the need for competitive activity creates a need for a competitive environment (social, material). The social environment of competitive activity implies the presence of at least several agents of activity (sportsmen, teams). The material and technical environment of competitive activity implies the presence of sports facilities and sports equipment. Each need can be specified in a galaxy of motives corresponding to it [7; 8].

It is possible to offer the following version of the model of the target structure and content of the need-motivational sphere of the competitive culture of the pentathlete (Table 1).

Competitive knowledge of a pentathlete is a practice-tested ideal idea of competitive activity and its rules. To put it simply, competitive knowledge is information that a pentathlete remembers and is able to use in the implementation of competitive activities. Competitive knowledge provides an answer to the question: “what needs to be done to materialize a competitive idea”? Competitive knowledge of a pentathlete can be classified as theoretical, methodical and practical.

The theoretical knowledge of a pentathlete includes knowledge of the theory and history of the competitive activity of modern pentathlon.

The methodological knowledge of a pentathlete includes knowledge related to the methodological aspects of competitive training.

The practical knowledge of a pentathlete includes knowledge of the rules of the competitive activity of modern pentathlon and the lexicon adopted here, including both official terminology and slang.

Practice shows that practical knowledge is enough for a pentathlete to carry out competitive activities. Theoretical and methodological knowledge is most often the prerogative of the coach.

Concretizing, we note that the practical knowledge of a pentathlete includes knowledge of the rules of competitive activity in all types of all-around.

Moreover, these rules are very extensive and require a good command of the lexicon of modern pentathlon.

Table 1 – Model of the target structure and content of the need-motivational sphere of the competitive culture of the pentathlete

Competitive needs	Competitive motives
1	2
The need for competitive activity	The desire to be an active participant in competitive activities in modern pentathlon
	The desire to be a winner (champion), record holder of competitive activity in modern pentathlon
The need for competitive skills and abilities	The desire to learn how to perform the modern pentathlon competitive exercise technically correctly
	The desire to master the technique of performing a competitive exercise in modern pentathlon at the level of technical mastery
The need for physical fitness for competitive activity	The desire to engage in general physical training and be strong, enduring, fast, agile, flexible
	The desire to achieve the maximum level of physical fitness in the modern pentathlon competitive exercise

End of table 1

1	2
Need for competitive knowledge	The desire to acquire the theoretical and methodological knowledge necessary to manage their preparation for competitive activities in modern pentathlon
	The desire to know the rules of modern pentathlon competitions
The need for a competitive environment	The desire to use sports facilities, inventory, equipment necessary for competitive activities in modern pentathlon
	The desire to compete and communicate with other pentathletes, to feel belonging to a sports team
Need for physicality	The desire to have a body anthropometrically adequate to the requirements of competitive activity of modern pentathlon
	The desire to have a strong, fast, enduring, flexible body that allows you to successfully participate in the competitive activities of modern pentathlon

Competitive skills of a pentathlete are stable stereotypes of competitive (motor and intellectual) activity. In pentathlon, the most important skill is the performance of a competitive exercise (consisting of five exercises), which ideally should be brought to the level of technical mastery. Competitive skills perform the function of means of competitive activity. Through them it is carried out.

The motor competitive skills of the pentathlete include the skills of running 5x600 m, shooting at 10 m (combined relay), fencing, riding, swimming at 200 m.

Intellectual competitive skills of a pentathlete are the algorithms of decision-making by an athlete brought to automatism in the course of competitive activity.

Physical fitness in competitive activity is a reserve of strength and energy that a pentathlete can spend on the implementation of competitive (motor and intellectual) activities. It is often the decisive factor for demonstrating a championship or record competitive achievement. A pentathlete needs physical fitness in running 5x600 m, in shooting at 10 m (combined relay), in fencing, in horseback riding, in swimming at 200 m.

Physical fitness in intellectual competitive activity determines the ability of a pentathlete to overcome psychological and physical fatigue throughout the competition, adequately respond to changes in competitive activity and make the right decisions in accordance with the decision-making algorithm.

Conclusion. The competitive culture of a pentathlete is a systemically organized unity of competitive needs and motives, competitive knowledge, competitive skills, physical fitness in a competitive exercise, united by competitive activity. The listed elements are combined into two components of the competitive culture: mental activity component and executive component.

The model of competitive culture of a pentathlete makes it possible to single out the systemic tasks of his competitive training. These include: to form a system of competitive needs and motives of a pentathlete; to form a system of competitive knowledge of theoretical, methodological and practical levels; to form a system of competitive skills (motor and intellectual); to ensure the maximum level of physical fitness in competitive activities; to include the pentathlete in active competitive and quasi-competitive activities.

Further practical application of the theoretical model of the competitive culture of athletes specializing in modern pentathlon involves the development of diagnostic tools to control the structure of the preparedness of a pentathlon athlete. In particular, a toolkit is needed to determine the state of the need-motivational sphere of competitive culture, the level of formation of competitive knowledge, the level of formation of competitive skills and physical fitness in the exercises included in the competitive exercise of the pentathlete.

The state of competitive culture (its structural components and elements) serves as the main criterion for differentiation and individualization of the process of training athletes. At the same time, when organizing the training process, one should take into account both the structure of the

competitive culture and the individual characteristics of a particular pentathlete and rely on his leading motor abilities. Such an organization of the training process, based on the constant consideration of the individual characteristics of each athlete is the most justified at the stage of the highest sports achievements [9; 10; 11].

List of literature used

1. Sevdalev, S. V. Modeling of competitive activity of highly qualified athletes specializing in modern pentathlon / S. V. Sevdalev // *World of Sports*. – 2021. – № 2 (83). – P. 54–59.

2. Narskin, G. I. Specificity of competitive activity of highly qualified female athletes specializing in modern pentathlon / G. I. Narskin, S. V. Sevdalev // *Applied sports science*. – 2021. – № 1 (13). – P. 4–11.

3. Han, D.R. Comparisons of performances before and after the rule changes in the Modern Pentathlon / D.R. Han, H.J Choi // *The Korean Journal of Physical Education*. – 2016. – Vol. 55(4). – P. 541–550.

4. Starchenko, V.N. Theoretical model of competitive culture of an athlete / V.N. Starchenko // *Physical culture and sport in the modern world [Electronic resource]: collection of scientific articles / Gomel state university named after F. Skorina; ed. coll. : G. I. Narskin (editor-in-chief) [and others]. – Electronic text data (5.13 MB). – Gomel: F. Skorina GSU, 2021. Access mode: <http://conference.gsu.by>. – Screen title. – P. 303–308.*

5. Starchenko, V. N. On the main categories of the theory of competitive activity / V. N. Starchenko // *Modern problems of physical education and sports of different groups of the population: materials of the XVIII International Scientific and Practical Conference of Young Scientists: in 2 volumes / ed. Ya.M. Kopytin; scientific. ed. O.A. Tomenko. – Sumy: Sumy State Pedagogical University named after A. S. Makarenko, 2018. – Vol. 2. – P. 152–155.*

6. Starchenko, V. N. The purpose and objectives of sports training in the light of the activity approach / V. N. Starchenko // *Prospects for the development of modern student sports. The results of the performances of Russian athletes at the Universiade-2013 in Kazan: materials of the All-Russian scientific and practical conference. – Kazan : Fatherland, 2013. – P. 473–475.*

7. Starchenko, V.N. Structural-functional model of human needs-motives-values induced by the need for competitive activity / V.N. Starchenko // *Strategy for the formation of a healthy lifestyle of the population by means of physical culture and sports: trends, traditions and innovations. Proceedings of the International scientific-practical conference dedicated to the memory of Professor V. N. Zuev. Tyumen: "Vector Buk", 2018. – P. 192–196.*

8. Starchenko V. N. On the relationship between physical culture and sports activities, physical culture and sports needs, motives and human values / V. N. Starchenko, A. N. Metelitsa, T. A. Horik // *Actual problems of modern education in the heritage of L.S. Vygotsky: Materials of the VII open scientific and practical conference / EE "Gomel State Pedagogical College named after L. S. Vygotsky"; ed. coll.: Kapatkova L. L. [and others]. : at 2 part. Part 2. – Gomel, 2015. – P. 25–27.*

9. Asinkevich, R. Peculiarities of manifestation of sexual dimorphism in highly qualified athletes specializing in modern pentathlon / R. Asinkevich, S. V. Sevdalev, E. P. Vrublevsky // *Theory and practice of physical culture*. – 2022. – №. 1. – P. 17–19.

10. Sevdalev, S. V. Individualization in the preparation of qualified female athletes specializing in complex all-around events / S. V. Sevdalev, M. S. Kozhedub, E. A. Aleinik // *Proceedings of the Gomel State University. F. Scorina*. – 2021. – № 2 (125). – P. 31–37.

11. Modelling of the competitive activities of qualified female short-distance runners, taking into account their individual characteristics / E. P. Vrublevskiy, S. V. Sevdalev, S. V. Lashkevich, A. S. Gerkusov // *Physical Education of Students*. – 2019. – Vol. 6. – P. 320–326.