

6. Turner, A. Routledge handbook of strength and conditioning. Sportspecific programming for high performance. Abingdon; NY. :44 Routledge, 2018. 680 p.

Valeriy Yednak, <https://orcid.org/0000-0003-0009-8805>
Mykhailo Vasiruk, <https://orcid.org/0000-0002-9899-4589>

Anatoliy Sysak

FEATURES OF PLANNING THE ANNUAL TRAINING CYCLE OF SPRIINTERS OF VARIOUS QUALIFICATIONS

Ternopil Volodymyr Hnatiuk National Pedagogical University

Annotation. The publication defines the peculiarities of planning the training process in the annual training cycle for athletes of different qualifications in short distance running.

Keywords: athletics, sprint, annual training cycle, physical qualities, planning.

Relevance. The training of an athlete is a long-term process that is subject to the general laws of education, training and development. It includes the goal, objectives, means, methods, organisational forms, material and technical conditions, etc. that ensure the achievement of the highest sports results by the athlete. [2]

The structure of training during the year is determined by the main goal, which is the purpose of training at this stage of long-term improvement. The principal feature of the annual training process is that it is built on the basis of relatively independent structural formations, all elements of which are united by a common task - achieving the highest state of readiness of the athlete, which determines a successful performance at major competitions. [1]

Taking into account new trends in the development of athletics and new provisions in the theory and methodology of organising and building long-term training of athletes, approaches to planning the annual training cycle should also be improved, taking into account the level of skill of the athlete.

The purpose of the study: to determine the peculiarities of approaches to planning the annual training cycle of sprinters of different qualifications.

Research methods: analysis, synthesis, generalisation and systematisation of existing scientific data and own work experience.

Research results. Sprinter training is a complex multifaceted process. During the training year, an athlete has to master several programs that run in parallel and sequentially for a long time: strengthening individual muscle groups, mastering individual elements of the technique, developing endurance, developing running speed, etc. [4]

Psychological training is also of great importance. Such parallel and sequential programs can enter into various types of relationships: from “cooperation” to “non-perception”.

For example, with the simultaneous development of running speed and endurance, these qualities can develop in parallel for some time. But as each of them strengthens, the stronger one can inhibit the other.

From the point of view of the optimal distribution of programs during the training year, several periods are distinguished in the training process, each of which is determined by the tasks and the nature of the means involved: preparatory, competitive, transitional.

But due to the fact that today competitions are held in the summer and winter periods, the periodization of the training process is presented in Table 1.

Each cycle, in turn, consists of microcycles. Each of them lasts 2-3 weeks: the first two with an increase in load (volume or intensity), the third - a decrease in volume and intensity and a change in training equipment (V. Petrovsky).

Such periodization of the training process is typical for athletes of higher categories.

Another option for periodization of the training process is used for athletes of younger categories and beginners.

Table 1

Periodization of the training process according to V.Petrovsky

Stages	PERIODS				
	Preparatory		Competitive		Transitional
<i>Winter</i>	September, October, November, December		January, February		The first half of March
<i>Elderly</i>	March, April		May, June, July		August
Training periods, in turn, are divided into cycles					
Periods	Preparatory		Competitive		Transitional
Cycles	Engaging	Base	Getting into sports form	Competitive	Transitional
months					
<i>Winter stage:</i>	September	October, November, December	January	February	The first half of March
<i>Summer stage:</i>	March	April	May	June, July	August
Number of weeks	2-3	4-12	3-4	4-10	2-4

Taking into account the competition calendar of Western Ukraine, we offer the following scheme: year-round training is divided into three periods: [3]

preparatory (duration – eight months from September to April), in which tasks of development of the ZFP, special and technical training are solved and participation in autumn and winter regional competitions is planned;

competitive (duration – two months: May, June) – participation in regional competitions and the youth championship of Ukraine among the Junior High School;

transitional (duration - two months: July, August) - rest in a sports and health camp, where the training process continues with a large volume, but with low intensity and the use of various means of physical activity.

A similar scheme of periodization of the training process was tested by us in 1985-1992. In July, the children went to the summer health camp "Shatsky Oзера" in Volyn, and in August - to one of the camps on the seashore. While in them, they conducted two training sessions on the sand. Such work in combination with swimming and rest brought tangible results. Natalya Shimon and Dmytro Myshka became the bronze medalists of the European Junior Championships in 1993 and 1995.

When planning the training process, you need to remember the following:

1. The process of mastering the technique, the speed of individual movements, the speed of running should be carried out during all periods of training.

2. It is necessary to run at the maximum speed only in the competitive period, when the technique is stabilized (the cycle of getting in shape and competitive). In the preparatory period, you need to run at a speed of 60-90% of the maximum. The task of the coach to the student: to run, controlling the technique.

3. The main task of the competitive period of the winter stage should be considered the development of absolute speed, summer – speed and speed endurance. Let's consider the main tasks that are solved during the periods of annual training.

Preparation period

1. Improvement of elements of technology and technology in general.
2. Strengthening weak muscle groups.
3. Development of motor skills.

During the preparatory period, the volume and intensity of training gradually increases. The volume reaches its maximum value at the end of the base cycle.

Competitive period

1. Increasing running speed (and speed endurance in the summer).
2. Adaptation to fast running in competitive conditions.

The main means of training is sprint running, which takes up 60-80% of the total volume.

Intensity reaches its greatest value during the "Getting in Shape" cycle.

To achieve the highest form, the athlete must take part in 4-6 competitions.

Transition

An athlete cannot endure heavy physical and mental stress for a long time. Therefore, the main tasks of the transition period will be:

- change of training conditions (summer health camp);
- load reduction;
- rest and treatment of injuries.

But already at the beginning of the 80s of the last century, some provisions of the classical theory of periodization of sports training were criticized and revised. Although, in relation to mass and youth sports, they remain fair. Nevertheless, the inevitable development of high-level sports has exacerbated a number of previously not so noticeable problems. What we mean:

- number and level of competitions; they became much more (European and world championships, Olympic Games, WA Grand Prix stages) and the traditional two-peak scheme ceased to satisfy the new requirements for multi-peak competitive activity;
- limitation of complex development of many qualities. The traditional scheme provided for a reasonable change of the objects of influence, but still at each stage of training there were too many of them for the body to be able to adapt. For example, in the preparatory period, it was necessary to develop basic aerobic abilities, maximum muscle strength, strength endurance in aerobic and anaerobic zones, increase basic speed and strength abilities, increase the stock of basic coordination elements, correct technical defects, replenish the tactical arsenal. Most of these tasks had to be solved in parallel, bringing together poorly compatible (or completely incompatible) physiological processes of adaptation.

From all that has been said, it is possible to formulate the main provisions of an alternative concept of building training, which allows overcoming or eliminating the contradictions of the classical system of periodization of the training process. This non-traditional model was called "***Block-building training***".

1. An important substantive component of the model is a training block - a mesocycle of concentrated training influence, in which the number of developing qualities is reduced to a minimum.

2. Unlike the classical model, which involves the complex parallel development of many qualities, the alternative concept has a consistent, concentrated effect on a small number of qualities (no more than two).

3. Three different mesocycles create a stage of training, which, as if in miniature, reproduces the change of training impact in the annual cycle: basic training - specialized training - implementation and participation in competitions.

4. The annual training cycle is formed by a certain number of stages that correspond to the number of major competitions and the need to achieve several (more than two) peaks of sports form.

5. The block system of building preparation allows to streamline and facilitate current and staged control. During current control, the indicators that determine the reaction to a concentrated dominant type of load are primarily monitored, and stage control tests organically fit into the final phase of the stage - testing.

The block scheme of construction significantly facilitates the process of bringing to the main competitions:

- after the completion of a rationally planned stage, it is possible to achieve the coincidence of the peaks of all leading motor qualities, based on the duration of the residual effects

(aerobic endurance - 30 days; maximum strength - 30 days; anaerobic endurance - 18 days, power endurance - 14 days, lactate capacity - 5 days). The optimal duration of the stage is 7-8 weeks.

Ideally, each stage should end with a competition. It is they that allow you to reach several peaks of sports form. And that's why the individual system of leading to the competition during one season can be repeatedly checked and improved.

The sequence of mesocycles - blocks of unidirectional concentrated work for speed -strength types may well be as follows:

The 1st block is a general physical and functional direction.

II block - power direction.

III block – high-speed and power direction.

IV block - high-speed and technical direction.

In our practical activities during the spring preparatory period, we combine the blocks of power and speed -power direction.

However, the block of concentrated load on the development of a specific physical quality contains not only narrowly directed work, it also involves the load on maintaining other physical qualities.

The content of narrowly focused work in this block is within 65-75%, the rest of the time is devoted to the development of other physical qualities and technique.

Under the condition of a rational alternation of block unidirectional loads, the effect of training increases in each subsequent block due to the imposition of a cumulative training effect.

Conclusion. Features that should be paid attention to in the process of planning the annual cycle of training for sprinters of various qualifications are: the structure of effective competitive activity, the structure of athletes' preparation, the competition system, the stage of multi-year training, the dynamics of physical and functional preparation, the distribution of training and competition loads in the annual cycles, training organization, climatic conditions, material and technical base.

List of references:

1. Akhmetov R.F., Maksymenko G.M., Kutek T.B. Athletics: a textbook. Zhytomyr: Zhytomyr Ivan Franko State University, 2010. 320 c. [Ukrainian].
2. Dukh T.I. Osnovy pidhotovky lehkoatletiv. Lektsiia z navchalnoi dystsypliny «Teoriia i metodyka obranoho vydu sportu, sportyvno-pedahohichne vdoskonalennia» Lviv : LDU fizychnoi kultury, 2018 26 s. [Ukrainian].
3. Vasiruk M.S., Yednak V.D. Selection and training in short distance running (second edition, supplemented and revised). - Ternopil: Volodymyr Hnatiuk TNPU Publishing House, 2022. 105 p. [Ukrainian].
4. Optimisation of physical and technical training in high-speed and power athletics: monograph. Edited by V. Konestyapin, Y. Svyshcho. Lviv, 2016. 220 p.