

THE CONSTRUCTION OF THE TRAINING PROCESS OF HIGHLY SKILLED FOOTBALL PLAYERS AT THE SPECIAL PREPARATION PHASE OF THE PREPARATION PERIOD

Viktor Kostiukevych¹, Oksana Shynkaruk², Natalia Shchepotina¹,
Valentina Voronova², Larysa Shevchenko³, Olena Zmievskaya¹, Vadym Stasiuk⁴,
Halyna Gordiichuk¹, Galina Putiatina⁵, Andrii Drachuk¹, Petro Danchuk¹

¹Vinnitsia Mykhailo Kotsiubynskiy State Pedagogical University, Ukraine

²National University of Ukraine on Physical Education and Sport, Ukraine

³Skovoroda Kharkiv National Pedagogical University, Ukraine

⁴Kamianets-Podilskyi Ivan Ohienko National University, Ukraine

⁵Kharkiv State Academy of Physical Culture, Ukraine

ORCID

Viktor Kostiukevych <http://orcid.org/0000-0002-9716-134X>

Natalia Shchepotina <http://orcid.org/0000-0002-9507-3944>

Larysa Shevchenko <https://orcid.org/0000-0002-0453-5892>

Vadym Stasiuk <https://orcid.org/0000-0002-7512-5794>

Galina Putiatina <http://orcid.org/0000-0002-9932-8326>

Petro Danchuk <http://orcid.org/0000-0002-6504-5408>

Oksana Shynkaruk <https://orcid.org/0000-0002-1164-9054>

Valentina Voronova <https://orcid.org/0000-0002-5072-4184>

Olena Zmievskaya <https://orcid.org/0000-0002-6985-2346>

Halyna Gordiichuk <http://orcid.org/0000-0001-6400-5300>

Andrii Drachuk <http://orcid.org/0000-0002-1552-4435>

ABSTRACT

Introduction and aim. The problem of constructing a training process for highly skilled players at the special preparation phase is not researched well enough. The special preparation phase should involve the specificity of the competition calendar, development of the structure and content of the corresponding types of micro cycles, and scientifically based selection of methods of training. The aim of the research is to analyze the structure and content of the training process of highly skilled football players during the special preparation phase of the preparation period at the first macrocycle of the annual cycle. Materials and methods. 22 highly skilled football players of Kamianets-Podilskyi National Ivan Ohienko University aged 18-23 participated in the research. All of them are MA students and elite athletes. Methods of analysis of scientific literature, pedagogical observation, timing of training work, and mathematical statistics were used in the research. Results and conclusions. The special preparation phase consists of two mesocycles. The basic stabilizing (control and preparation) mesocycle - the volume and intensity of training sessions - was characterized by the widespread use of special-training exercises. In comparison with previous mesocycles, considerably more trainings were devoted to technical, tactical and game preparation. Technical and tactical training was carried out in the form of adaptive training exercises along with special physical training. Pre-competition mesocycle rolled up the preparation of the athletes for the competition period. The reparation in this mesocycle had an expressed "integral" character. In this mesocycle, one should not forget about maintaining the level of special physical fitness. Maintaining it throughout the mesocycle is one of the important prerequisites for the steady growth of athletes' physical state, but the composition of the means significantly changed by increasing the proportion of special technical and tactical exercises being held. In this mesocycle, the largest number of control games, starts, competitions, etc. were carried out. A special place in pre-competition mesocycle was taken by tactical and psychological training. The proportion of theoretical training also increased.

Key words: *highly skilled football players, training process, means of the training, training load, the special preparation phase.*

INTRODUCTION

The construction of the training process in the annual cycle of highly skilled football players' training is a topical issue for trainers and football professionals. First of all, it is necessary to rationally combine stimulating and restorative phases, that is, modes of loads and rest (Kostiukevych, 2009; Matveev, 2010; Platonov, 2013).

Training process at the special preparation phase is aimed at increasing the level of special training and improving more specialized motor and technical capabilities. Therefore, it is necessary to plan the training process in such a way that athletes are in optimum readiness to demonstrate high skills in the main competitions of the season (Bompa, Carrera, 2005; Shamardin, 2012; Kostiukevych, Imas, 2018).

The analysis of the special scientific literature showed that the problem of constructing the training process of skilled athletes in team sports at different stages of annual and multi-year training is crucial. It has been analyzed and researched by a sufficiently wide range of theorists and practitioners in volleyball (Shchepotina, 2015; Imas, Borysova et al, 2017; Malikova, Doroshenko, Symonik et al, 2018; Kostiukevych, Shchepotina, Shynkaruk, et al, 2019), handball (Thorev, 1999; Sidorchuk, 2012), football (Kostiukevych, Stasiuk, Shchepotina, et al, 2017; Ovcharenko, Iakovenko, 2017, Stasiuk, 2017), and field hockey (Kostiukevych, 2013; Kostiukevych, Lazarenko, Shchepotina, et al, 2019). In particular, they studied the methods of training football players according to the individual aspects of their preparation (Kostiukevych, Stasiuk, Shchepotina et al, 2017), development of tools and methods for controlling preparedness and competitive activities, optimization of the training of football players on the basis of simulation of training and competitive activities (Ovcharenko, Iakovenko, 2017) etc. At the same time, the issue of highly skilled players' training process construction during the special prepara-

tion phase, taking into account the specifics of the competition calendar, the development of the structure and content of the corresponding types of microcycles, the scientifically grounded selection of methods and methods of training, remains insufficiently researched.

The *aim of the research* is to analyze the structure and content of the training process of highly skilled players during the special preparation phase of the preparation period of the first macro cycle in their annual preparation.

MATERIALS AND METHODS

Participants

22 highly skilled football players of Kamianets-Podilskyi National Ivan Ohiienko University aged 18-23 participated in the research. They have taken part in the championship of the region with the teams of the 1st group, as well as in the competitions of the student football league of Ukraine. All of them are MA students and elite athletes. The informed consent to participate in this experiment was received from all these participants.

Organization of the research

The research was held over a two-year period of time. In the first year, a summative experiment was conducted, and during the second year the formative experiment took place. In the process of pedagogical observation of the football players' training activities, we conducted the timing of their training (fixing the nature and duration of exercises) with the simultaneous registration of the heart rate with the help of the monitor of the heart rate Polar RS800CX. The analysis of the findings allowed us to determine:

- 1) pedagogical orientation of the means: non-specific exercises (without balls) or specific ones (with balls), exercises for general fitness, special preparation exercises, subordinate or competitive exercises, exercises for speed, speed-force training, etc. (Kostiukevych, 2013);

2) physiological aspects of loading: the load of aerobic, mixed aerobic-anaerobic, anaerobic lactations or anaerobic glycolytic orientation.

Statistical analysis

Descriptive statistics was used in the mathematical interpretation of the study findings: the arithmetic means, the mean square deviation, the standard error of the arithmetic mean. The mathematical processing of the research results was carried out using MS Excel software packages.

RESULTS

The special preparation phase of the preparation period for the first macro cycle of the annual training of highly skilled players lasted 26 days and involved holding a basic control preparation mesocycle (two 5-day high-impact trainings, one 3-day recreational microcycle) and a pre-competition mesocycle (two 5-day lead-in trainings, one 3-day recreational microcycle).

High impact microcycles were planned in order to increase players' special training with the account of a significant amount of training work with a rather high intensity of exercises.

High impact microcycles were carried out in the basic control preparation mesocycle. It is worthwhile to note that practically after each high impact microcycle a recreational microcycle was performed.

Lead-in microcycles were introduced in order to have a more focused preparation for the competitive activity of football players. In these microcycles, the training was aimed at adapting players to competitive activities, raising the level of technical and tactical skills, forming psychological stability to the conditions of competitive activity, determining the main team and the starting line-up of the team, etc.

The main objective of recreational microcycles was optimal restoration of football players' sports performance. Using these microcycles allowed us to adhere to the principle of wave-like training loads. At the special preparation phase, after high-impact and lead-in micro cycles, recreational micro circles were performed. The total volume and ratio of training loads of different orientations at the special preparation phase of the preparation period in the first training cycle of annual training at the stage of the summative experiment is given in Table 1.

Table 1. Total volume (mins) and correlation of training loads of different orientation of highly skilled football players at the special preparation phase of the preparation period at the stage of the summative experiment

№	Mesocycles (microcycles)	Orientation of loads, mins (%)				Total, mins
		Aerobic	Mixed aerobic-anaerobic	Anaerobic lactations	Anaerobic glycolytic	
Special preparation phase						
1	Basic control preparation mesocycle	670 (52.5 %)	465 (36.5 %)	100 (7.8 %)	40 (3.2 %)	1275
2	Pre-competition mesocycle	465 (34.8 %)	780 (58.4 %)	60 (4.5 %)	30 (2.3 %)	1335
	Total during a special preparation phase	1135 (43.4 %)	1245 (47.7 %)	160 (6.1 %)	70 (2.8 %)	2610 / 44 hrs.

During the special preparation phase the training effect on the players was carried out through aerobic (43.4 %), mixed (47.7 %), anaerobic-lactations (6.1 %) and anaerobic-glycolytic (2.8 %) loading.

The volume of motor activity of football players at the special preparation phase of the preparation period in the first training cycle of annual training was 2610 minutes (44 hours). The largest volume of aerobic loading was

observed in the basic control preparation mesocycle - 52.5 %, mixed (aerobic-anaerobic) – in the pre-competition mesocycle (58.4 %), anaerobic-lactations and anaerobic-glycolytic - in the basic control preparation mesocycle,

7.8 % and 3.2 % respectively.

The volume of training in microcycles at the special preparation phase of the preparation period of the first macrocycle at the stage of the summative experiment is given in Table 2.

Table 2. *The volume of training work in microcycles at the special preparation phase of the preparation period at the stage of the summative experiment*

Microcycles	№	The volume of training work, mins (%)				Total mins (%)
		Nonspecific		Specific		
		For general fitness	Special preparation	Lead-in	Competitive	
Basic control preparation mesocycle						
5-day high impact	1	433 (53.8)	62 (7.7)	208 (25.9)	100 (12.5)	803
3-day recreational	1	152 (100)	-	-	-	52
5-day high impact	1	433 (53.8)	62 (7.7)	208 (25.9)	100 (12.5)	803
Total	3	1018 (57.9)	124 (7.0)	416 (23.7)	200 (11.4)	1758
Pre-competition mesocycle						
5-day lead-in	1	286 (40.8)	98 (14.0)	137 (19.5)	180 (25.7)	701
3-day recreational	1	152 (100)	-	-	-	152
5-day lead-in	1	286 (40.8)	98 (14.0)	137 (19.5)	180 (25.7)	701
Total	3	724 (46.6)	196 (12.6)	274 (17.6)	360 (23.2)	1554
Total during a special preparation phase	6	1742 (52.6)	320 (9.7)	690 (20.8)	560 (16.9)	3312

The special preparation phase started in the basic control preparation mesocycle which consisted of two high-impact and one recreational microcycles. The volume and intensity of training sessions was characterized by extensive use of special training exercises (57.9 %). In comparison with previous mesocycles, considerably more trainings were devoted to lead-in exercises (23.7 %) and competitive exercises (11.4 %). Lead-in exercises were carried out in the form of adaptive training tasks alongside with special training exercises (7.0 %). The total amount of training work in the basic control-preparation mesocycle was 1758 minutes.

The pre-competition mesocycle involved two lead-in and one recreational microcycles, and, in accordance with the recommendations of specialists in the theory and practice of sports, completes the preparation of athletes for the competitive period. Preparation in this mesocycle had an expressed “integral” character. The number of general fitness exercises (46.6 %) and lead-in exercises (17.6 %) decreased significantly. In comparison with the basic control preparation phase, considerably

more trainings were devoted to special preparation exercises (12.6 %) and competitive exercises (23.4 %). In the pre-competition mesocycle a special focus was placed on tactical and psychological training. The proportion of theoretical training also increased.

The pre-competition mesocycles was characterized by a slight decrease in the total load volume to 1554 min.

In general, in the special preparation phase general-preparatory exercises accounted for 52.6 %, special preparation exercises - 9.7 %, lead-in exercises made up 20.8 %, and competitive exercises - 16.9 %. The total time of training was 3312 minutes.

DISCUSSION

The training process is built on the basis of a certain structure, which is a relatively stable order of the combined components (parts, sides, links), their logical correlation and general sequence (Matveev, 2010; Platonov, 2013; Kostyukevich, 2013). In particular, the structure of the training process of athletes is characterized by:

- a grounded order of correlation of the vari-

- ous aspects of training content (components of general and special physical training, technical, tactical training, etc.);
- a required ratio of parameters of training and competitive loads;
 - a certain sequence of different parts of the training process (individual classes and their parts, stages, periods), which are the phases or stages of this process (Bompa, Carrera, 2005; Kostyukevich, 2013).

The training process consists of separate structural units, which are its constituent parts. In the theory of sports training one distinguishes: 1) microstructure - the structure of microcycles and their components - separate training sessions; 2) meso structure - the structure of mesocycles and their components - separate microcycles; 3) macrostructure - structure of

the annual training cycle and its components - stages and periods (Platonov, 2013).

The subject of our study was the structure and content of the training process of highly skilled players at the special preparation phase of the preparation period of the macrocycle. The training at this stage is under special focus and it should ensure athletes' readiness for effective competitive activities (Platonov, 2013).

The content of the training process involves the development and improvement of complex qualities (speed-force, coordination abilities, special endurance) (Platonov, 2013; Kostyukevich, 2016).

With a purpose of holding control over the types and components of training work, a specific classification of training means in football was developed (Figure 1).

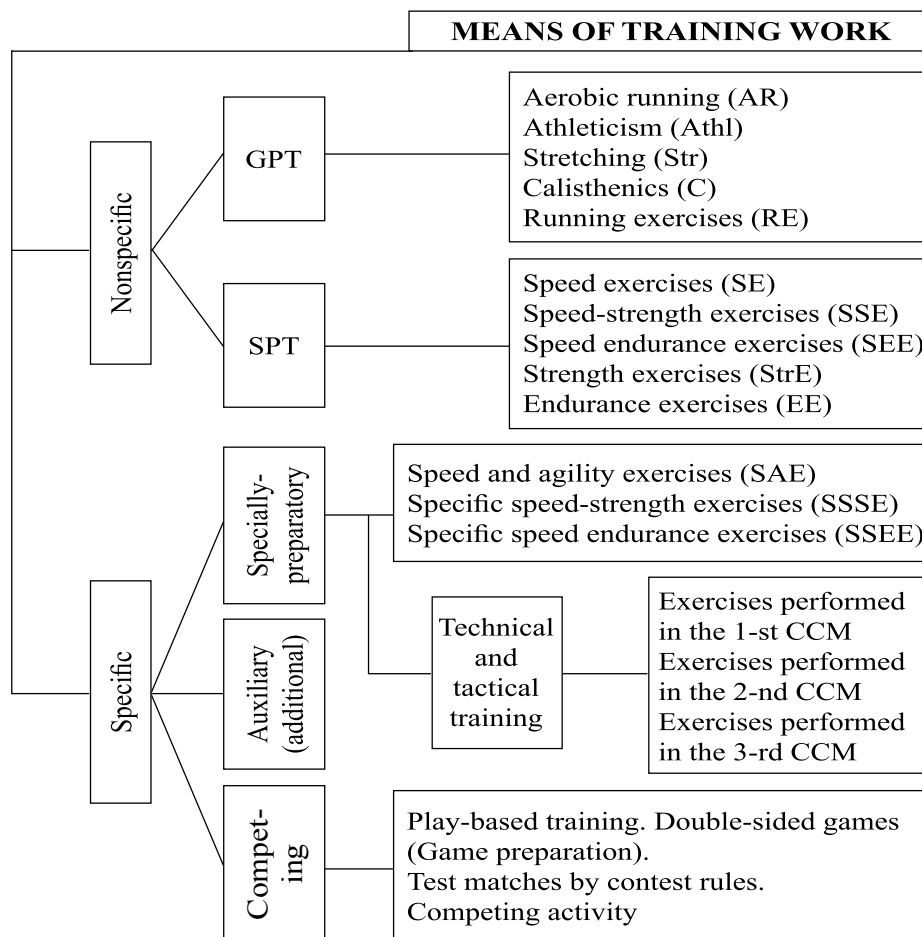


Figure 1. Classification of training means in football (V. M. Kostyukevych, 2016)

Note: GPT – general physical training; SPT – special physical training; CCM – coordination complexity mode.

In general, a new methodical approach to the classification of training work in football was introduced. It is based on the general principles of the construction of athletes' training process on the basis of the theory of periodization (Matveev, 2010; Platonov, 2013).

CONCLUSIONS

1. The analysis of scientific literature has proven the crucial role of the special preparation phase of the preparation period at the stage of the summative football expert's experiment. Efficient training of players at this phase provides the optimal formation of training efficiency and the subsequent effective improvement of various aspects of athlete's preparedness.

2. The pedagogical observation of the training process of highly skilled football players showed that the special preparation phase of the preparation period in the annual training consists of two mesocycles - the basic control preparation (containing two high impact and one recreational microcycles) and pre-competition (includes two lead-in and one recreational microcycles).

3. Thus, the structure and content of the special preparation phase of highly skilled football players at the stage of the summative experiment is conditioned by the optimal development of their sports shape due to the gradual increase in the volume and intensity of training with an emphasis on integral training in the final microcycle of the preparation period. This approach to the construction of the training process allowed us to optimize targeted management impacts along with the improvement of players' technical and tactical skills.

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Corresponding author:

Oksana Shynkaruk

National University of Ukraine on Physical Education and Sport,
03150, 1, Fizcultury st.,
Kyiv, Ukraine
E-mail: shi-oksana@ukr.net