

## MENTAL ENLIGHTENMENT SCIENTIFIC – METHODOLOGICAL JOURNAL



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## CONTROL OF PHYSICAL TRAINING OF HIGHLY QUALIFIED FOOTBALL PLAYERS USING INNOVATIVE TECHNOLOGIES

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### ABOUT ARTICLE

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**Abstract:** This paper presents a system for managing the level of physical fitness of highly qualified football players using modern technologies. The volumes of motor movements of highly qualified football players performed in training sessions and during matches have been established. The results obtained can be used by football specialists during matches have been established. The results obtained can be used by football specialists

### INTRODUCTION

It is known that the effectiveness of training process management largely depends on the objectivity of the criteria for assessing various aspects of preparedness, competitive and training activities and the model characteristics developed on this basis [1,2,4,5].

In modern sports, innovative technologies are used to obtain the necessary information about various aspects of athletes' preparedness. In the studies of both domestic and foreign specialists, conducted in sports games, there are quite informative works on managing the preparation of athletes using modern technologies.

Management in the sports training system is, first of all, a targeted, planned and controlled impact of various factors of the training process on the athlete's condition, with the aim of optimizing it for the most effective implementation of the accumulated functional potential in competition conditions (M.A. Godik 2017, S.N. Tyulenkov 2007).

Improving the system of training high-class football players cannot be solved without studying and developing modern methods in managing the training process based on indicators

of objective control over the level of their preparedness. Problems in managing the system of training highly qualified football players are caused by a number of factors, one of which is the ever-increasing number of official competitions and the participation of clubs and national teams in various commercial tournaments.

In our opinion, one of the main tasks of managing the training of football players is to control competitive activity, which integrally reflects the level of athletes' fitness. By studying various parameters of football players' game actions, such as the accuracy of technical and tactical moves, the volume and intensity of motor movements, the implementation of the tactical plan for the game, the degree of implementation of functional capabilities, the coach can make adjustments to the training process, which undoubtedly increases the efficiency of managing their training.

### **MATERIALS AND METHODS**

To assess the level of physical fitness of football players, the coach needs to have information that can be obtained in two ways - by conducting pedagogical testing of the level of physical fitness or by analyzing their motor movements in various speed modes and in different intensity zones during the match. Having information about the motor activity of a football player during a match, one can judge his functional and physical fitness [5,6].

In the recent past, the coach received indicators of motor activity and the volume of technical and tactical actions using visual control, which reduced the reliability of the data obtained. In recent decades, innovative technologies have been widely used in football, which allow obtaining information about various aspects of athletes' preparedness online, both during a match and in a training session, which has significantly increased the efficiency of managing their preparation process. Therefore, at present, it is necessary to comprehensively study all factors affecting the effectiveness of football players' preparation, using the latest scientific methods for this purpose.

However, in Uzbekistan, innovative technologies based on advanced theoretical knowledge and practical developments have not yet been widely used in the management of the system for training highly qualified football players. The vast majority of coaches and specialists working with different age groups of football players are not sufficiently aware of the technologies themselves and the opportunities they provide. They do not have a complete understanding of how to manage the special physical training of highly qualified football players in the competitive period using innovative technologies. Therefore, the relevance of this work is obvious and its study is caused by practical necessity.

Objective. Studying the level of special physical training of highly qualified football players in the competitive period using innovative technologies.

Research methods. The following methods were used to study the special physical training of football players in the competitive period: analysis of the motor activity of football players during the match. For this purpose, the Polar Team Pro system was used, which recorded the physiological intensity of the load in 5 zones based on the heart rate (HR) indicator and the volume of motor movements of football players in 5 speed zones.

Control of competitive activity was carried out among the football players of the national Olympic team of Uzbekistan, who took part in the qualifying games of the Olympic tournament. The tournament was held from April 15 to May 3, 2024 in Qatar. Information in which pedagogical observations were carried out on the volume of motor movements is presented in Table 1.

*Table 1*

**Characteristics of the teams in which pedagogical observations were conducted**

<b>Nº</b>	<b>Teams</b>	<b>Date</b>	<b>Check</b>	<b>TTD quantity</b>
1	Malaysia	17.04	2:0	720±21
2	Kuwait	20.04	5:0	680±33
3	Vietnam	23.04	3:0	810±19

Obtained data obtained by mathematical statistical methods, calculations: average indicators (X), total volume and percentage ratio of engine movement of football players and different speed zones.

**RESULTS AND DISCUSSION**

Discussion of the results of the study. One of the ix informative indicators of the level of special physical preparation of football players is the general movement of movement. It is important to note that the main trend of the modern game is the increase in the pointers of high-speed running and the general volume of engine rotation of football players and the performance of most of the games in the game. And this circumstance requires a higher level of special physical training of football players.

Control of the motor activity of the players of the national Olympic team of Uzbekistan in the matches of the group selection tournament Paris2024 allowed to show the volume of movement and different speed ranges (table 2).

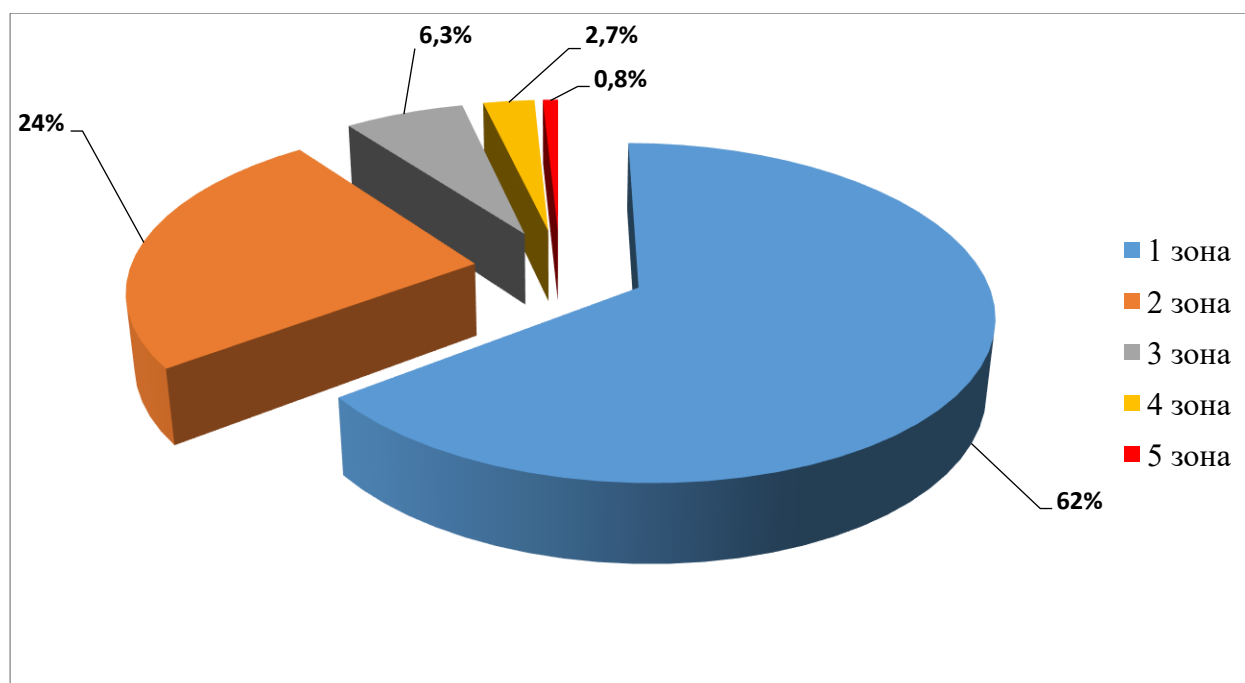
Table 2

**Results of engine activity of the team of the Uzbekistani team at the speed range  
(n= 10)**

Teams	Скорость (V) км/час (м)					Кол-во спринтов	Σ (м)
	0-11,29	12,3-15,39	15,4-19,79	19,8-25,19	≥ 25,20		
Thailand	55815	39085	4110	2947	1057	125	103139
Syria	73049	22821	7802	2575	731	135	107113
Iran	70709	15319	9972	4434	1813	150	102397
<b>Σ</b>	<b>199573</b>	<b>77225</b>	<b>21884</b>	<b>9956</b>	<b>3601</b>	<b>410</b>	<b>312649</b>

It is evident that on average, the volume of motor movements of the Uzbekistan national team football players was 104216 m. These figures indicate the average level of running activity of football players. The best national teams in the world have volumes of motor movements of 11-13 km per match. It should be emphasized that the volumes of motor movements of football players are largely determined not only by the level of special physical training, but also by the tactics of the game and the skill level of the opposing team. Thus, the largest volume of motor movements of the Uzbekistan national team football players was shown in the match with the Syrian national team - 107113 m.

The analysis of motor movements in percentage terms in 5 speed zones is presented in Figure 1.



**Fig. 1. Volumes of motor movements of football players in %.**

It is evident that the greatest volume of movements 66.2% were performed by the football players of the national team of Uzbekistan in the 1st speed zone (V=0-11.29 km/h). This fact suggests that more than half of the movements were performed at a slow pace. In the 2nd speed

zone ( $V=12.3-15.39$  km/h), the volume of movements was 24%, which also indicates a low level of motor activity of the football players. In the 3rd zone ( $15.4-19.79$  km/h), the volume of running movements was 6.3%, which is also an insufficiently high indicator for the players of the national team. Of greatest interest to specialists is the analysis of the volume of movements in the 4th ( $19.8-25.19$  km/h) and 5th ( $\geq 25.2$  km/h) zones. The volume indicators in these zones were 2.7% and 0.8%, respectively. In total, the volume of running in these zones amounted to 3.5%, for the best teams in the world these figures are 8-10% of the total volume of motor movements per match.

Analysis of running at sprint speed of the Uzbekistan national team football players on average amounted to 917.9 m. This fact indicates that the level of special physical training of Uzbekistan football players is not high enough.

In order to compete at the international level, it is necessary to make adjustments to the system of training football players in Uzbekistan, starting with the initial training groups.

Management in the system of special physical training of football players should be aimed at developing and implementing training load programs aimed at developing speed and speed-strength qualities, and then speed endurance. This approach will generally improve the level of special physical training of football players.

## CONCLUSIONS

1. Analysis of the indicators of motor movements revealed shortcomings in the management of the system of special physical training of the football players of the Uzbekistan national team.

2. The level of high-speed movements in the zone  $V \geq 25.2$  km/h in international matches is not high enough and is 3.5% of the total.

3. It is necessary to review the system of special physical training of football players, starting with the initial training groups.

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