

# THE SYSTEM OF CONTROL OVER THE COURSE OF PHYSICAL PREPARATION AND HEALTH OF TRAINERS

**Valentina Maklakova, Eduard Popov**

Daugavpils University  
St. Tartu the house 1- 42  
Daugavpils, LV -5422  
e-mail: vaditos@inbox.lv

Latvian Academy of Sport Education  
Brivibas Street 333, Rīga, LV-1006, Latvija  
e-mail: edpopovs@inbox.lv

## **Abstract**

*It is not a secret that the better physical development of people is, the more they can achieve both in sport and everyday life. Every year the level of competition in the international arena is increasing, but rapid growth of results in sport demands new approaches in the process of sportsmen training. To achieve high sports results we should develop physical characteristics starting at school age, keeping control of them with the help of testing program that meets special requirements: stability, availability of marking system, reliability and information accessibility. Programming of the process of long-standing training of trainees of sports school gives the necessary effect only having the system of control over the course of preparation. The tasks of the control are as follows: individualization of the training process taking into consideration gender, age, degree of physical development of those, who go in for sport, and the level of their physical preparedness, determining of efficiency of applied means and methods of preparation, correction of training plans. Carrying out a research on the basis of Daugavpils complex sports school out of the majority of known methods we have chosen the most efficient tests, which can be conducted both on the sports-ground and in the gym. 243 trainees of sports school took part in the research. With the help of acquired results we have developed T-scale marking system, on the basis of which a marking table has been created. The results of control tests in physical preparedness and their comparison with the received tables allow a trainer to reveal the dynamics of growth of sports results and foresee the further achievements of a sportsman.*

**Key words:** tests, control, physical preparedness, T-scale.

## **Introduction**

*Physical exercises have to be the part of everyday life of everyone, who wants to maintain health and joyful life full of value.*

*/Hippocrates/*

Health of the nation is economic and political category that determines social stability. Labour potential of the country and its defensive potentialities depend on that. Only healthy people are able to produce material wealth, study successfully, train and become efficient specialists and outstanding sportsmen. Neither scientific progress, nor success in economics, sport and other branches of economy is possible without that (Landa 2005).

During the years of reforms of the state system the demographic situation in Latvia has aggravated noticeably. Death- and sick rate is increasing, but birth - rate and capability age is decreasing. The state of children's health is getting worse.

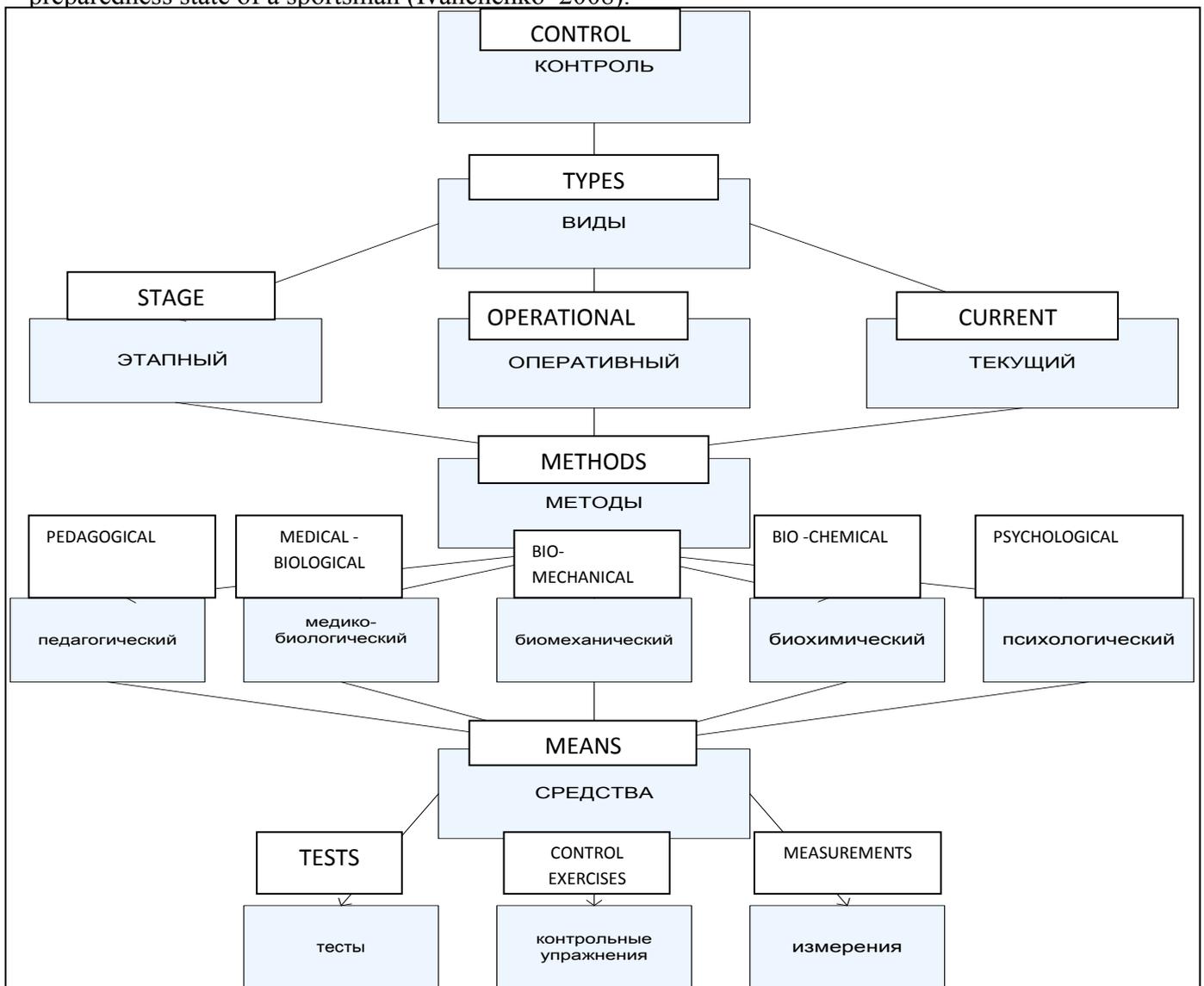
The problems similar to the ones happening in our country and society can be observed at sport schools. The first problem of a trainer is the low level of children's physical development, considerable fluctuation in groups, unwillingness of children to train, raising the level of their physical development and to strengthen their health. The experience of a trainer, who can interest children and teach them to train with interest to the chosen kind of sport, plays a great role here. Motive activity of growing generation is considered as one of the main factors of health formation (Makarova, Loktev 2005).

You do not need to convince a specialist, what an important meaning the system of control and registration in the process of sports training has. Registration of sports training indices gives a trainer the possibility to check how correct selection and usage of means, methods and forms of implementation of sports training process are and to reveal a more effective way to increase sports mastery. It allows follow the levels of different sides of sportsmen’s preparedness, dynamics of sports results, physical development and state of health (Hrushev 1980). Data analysis gives a possibility not only to control but also to improve the educational and training process actively interfering in it. After one-year-cycle of sportsmen’s training and participation in competitions it is time to make conclusions (Aulik 1977). We have to consider the lessons of victories and defeats from the pedagogical point of view only. A wish to achieve even greater sports success first of all demands the improvement of a training process. The data of operational, current and stage control are the main tools of management of a training process (Lyah 1998).

To develop objective assessment and make new decisions it is necessary to speak about an important role of control over the course of sportsmen training and registration of acquired indices. Efficiency of sports training system is defined on the basis of indices of the so-called feedback that goes from a sportsman to a trainer.

In sports practice control and management are considered in parallel.

This is explained by the fact, that we can manage the training process only on the basis of information, but its acquirement is exactly the control of one or several components, that reflect the preparedness state of a sportsman (Ivanchenko 2008).



**Figure 1.** The scheme of control over sportsmen's training is given by the author E.I.Ivanchenko

This is achieved with the help of means and methods of control in the form of feedback between a trainer and a sportsman. Thus, the trainer gets a possibility to manage training of a person, who goes in for sport.

The subject of control in sport is the process of preparation to the competitive activity, the state of different sides of preparedness and capacity for work of a sportsman (Blagush, 1982).

The object of control in sport is the content of educational and training process, competitive activity, state of different sides of preparedness of sportsmen (technical, physical, tactical, etc.), their capacity for work, possibilities of functional systems (Karpman, Gudka 1988).

The aim of the control is optimization of the preparation process and competitive activity with the help of assessment of different sides of preparedness and the main functional systems of sportsmen's organism. It is realized in the solution of particular tasks, connected with assessment of sportsmen's state, level of their preparedness, implementation of working plans and results shown for all that ( Zheleznyak, Petrov 2005).

### **Material and methods**

The following methods have been used in the work:

1. Analysis of scientific – methodical literature;
2. Control tests to investigate physical preparedness of pupils of a sports school;
3. Methods of mathematics – statistics processing of results of pedagogical experiment.

To investigate the issue of influence of physical preparedness level on the growth of sports mastery we have carried out certain work.

On the basis of complex sport school, where the pupils go in for different kinds of sport, it has been interesting to check the development level of common physical preparedness and to compare the results according to specializations in the groups, as well as the common ones. The age norms are of a particular importance in physical development, which are considered as control (compared) ones to assess the individual motive activity.

The pupils of a sport school were offered the program of competitions consisting of specially chosen tests. The competitions were conducted in three stages from April to November on the basis of Daugavpils Sport School.

Stage 1 – spring – 243 participants

Stage 2 – summer – 266 participants

Stage 3 – autumn – 240 participants

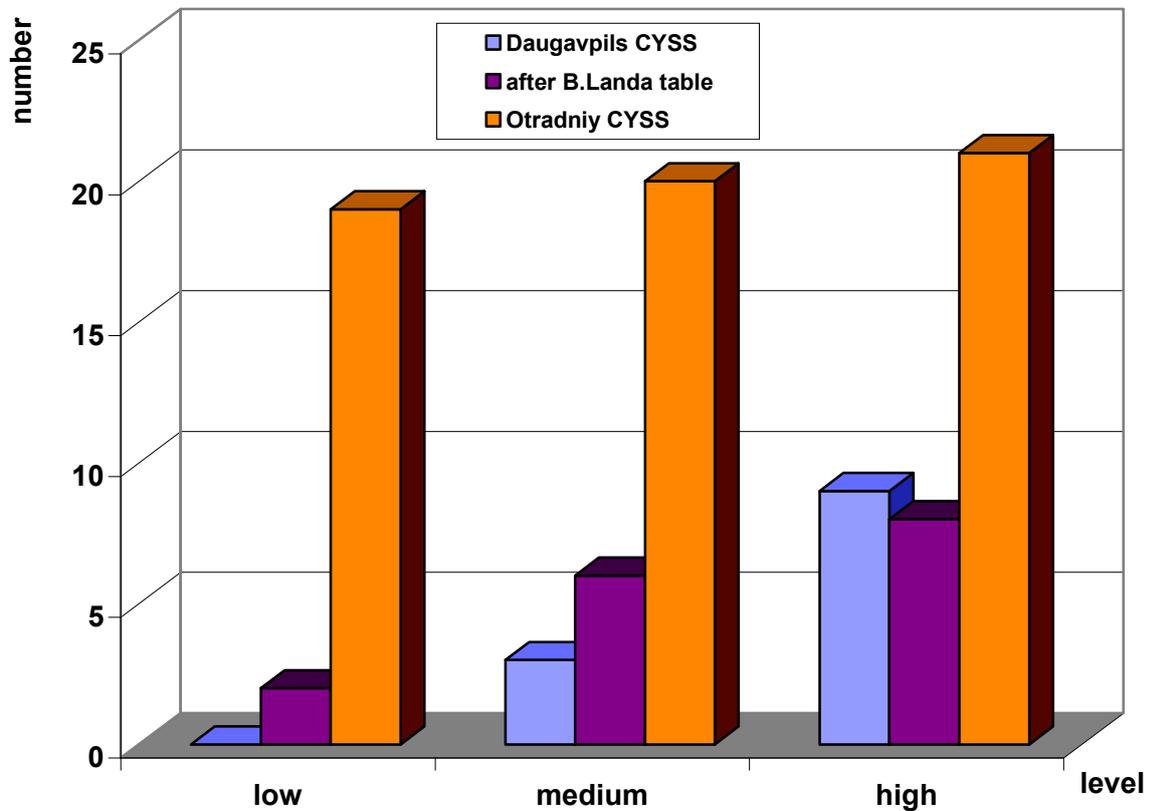
### **Results**

The age range of competition participants was from 10 to 16 years old inclusive. The tests results shown by the sportsmen are expressed in different units (seconds, centimeters), that is why they are not compared directly with each other, as well as testing data do not show how satisfactory the state of a sportsman is. Then we have transferred the results into points, it means we have assessed the acquired results of competitions. The assessment was carried out in two stages. At the first stage we transferred the shown results into points, at the second one having compared the acquired points we deducted the final assessment.

In practice different scales of assessment are used. We have used the most popular T-scale (Nachinskaya 2005).

Analyzing the acquired data according to the results of power endurance of shoulder muscles and to be visual comparing them with the data from the tables of the methodical textbook

by the docent B.H.Landa (Kazan, the Tatarstan Republic) and the results of the pupils of Children and Youth Sport School in Otradniy, Samara district we observe the following picture (see Figure 2).

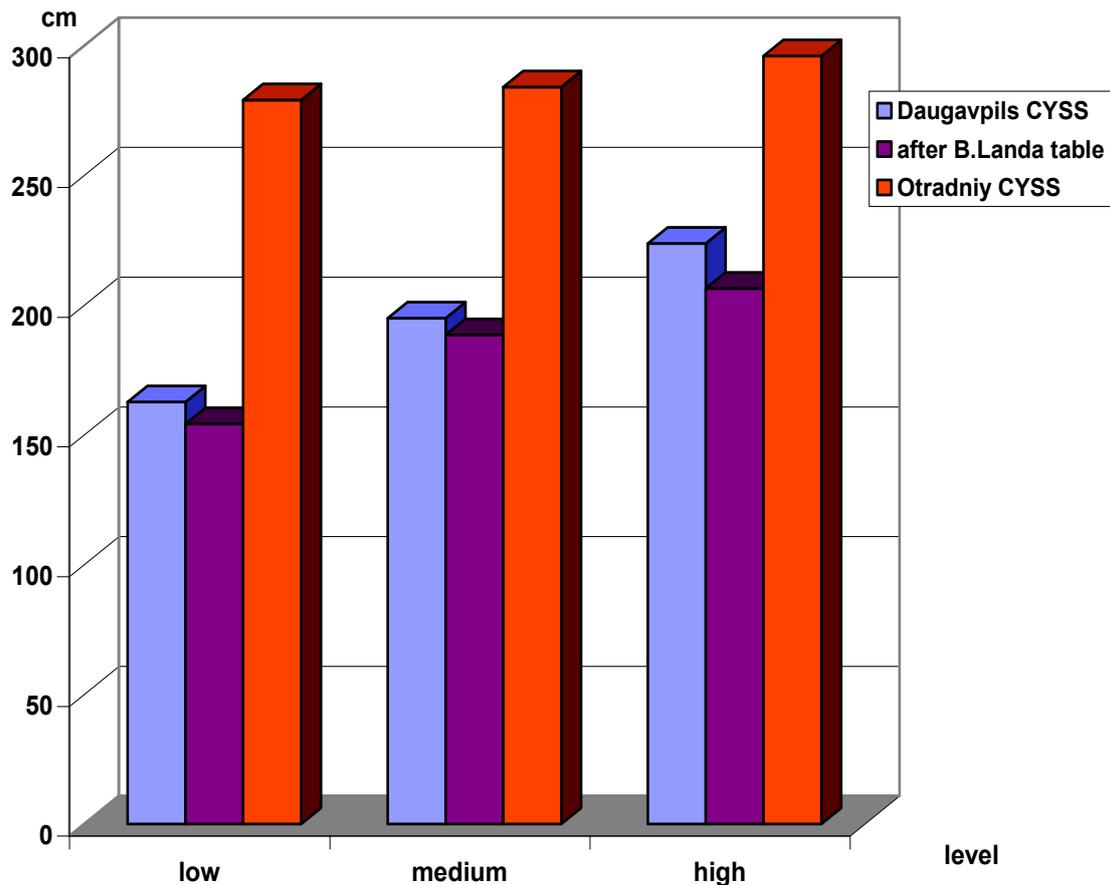


**Figure 2.** Pulling up while hanging

The pupils of Daugavpils Sport School have a low level of power endurance of shoulder muscles, it is “zero”, according to the table of B.H.Landa it is “2”, but the pupils of Children and Youth Sport School in Otradniy have the result “19”. These figures show a very visual picture analyzing the results of our pupils on three levels. We see, that the situation is rather gloomy: low level – 0, medium level – 3, but high level – 9.

If to compare with the indices of the table of B.H.Landa we see, there is lagging on the low and medium level and there is little outstripping on the high level. The situation could seem not so bad if to compare with the table of a docent B.H.Landa, where the data of pupils not sportsmen are given, but comparing with the data of Children and Youth Sport School in Otradniy we have very poor results, to tell the truth. However, this is information to be reflected by our trainers in order to correct training plans.

There is something to think about and something to work on.



**Figure 3.** Long jump from the place

Figure 3 shows the situation in the long jumps from the place (measurement of dynamic power of legs muscles). The comparison happens to the same tested pupils as in Figure 2 (by absolute indices). Here we observe a considerably better situation in comparison with the pupils according to the tables of docent B.H.Landa our pupils have better results, but if to compare with the pupils of Children and Youth Sport School in Otradniy considerable difference is observed: if Daugavpils Sport School has the index 162,7 cm on the low level, then pupils of Children and Youth Sport School in Otradniy – 279 cm; on the medium level our result is 195 cm, their result is 284 cm, but on the high level the indices have lower difference than on the two previous ones, our result is 223 cm, their result is 296 cm. Analyzing these data of dynamic power of legs muscles the situation at our school is more favorable in comparison with the data of power training, although there is always a possibility of improvement in the training process.

### **Conclusion**

Conduction of competitions in testing of physical features gives a unique opportunity to compare the level of physical preparedness, to reveal the weak sides in organization of physical education of growing generation in a town.

Assessment of indices of physical development, functional and physical preparedness will help in sick – rate prophylaxis by the means of physical culture, sport and training. Perhaps this is one of the solutions of the problem how to improve the nation’s health.

The content and forms of organization of training activity influence seriously the state and prospects of health of growing generation. Creation and introduction of testing technology of physical preparedness indices will give a possibility of analysis of the results, that allow to compare factual and calculated figures, to give them qualitative and quantitative assessment and to follow their dynamics. However, annual conduction of competitions in common physical preparation of pupils of all the specializations will give an opportunity to analyze the data. Trainers use materials and testing tables for analysis in the trainers' councils and parents' meetings. Materials will help to compare the reasons of decrease and increase of the results of the level of physical preparedness, to outline the tasks of problem solution. There is a strong possibility that in the future analysis of testing materials will help to cope with the situation of adult sport, because youth sport creates foundation of big sport.

### **Literature**

1. Ivanchenko E.I. (2008). *Control and registration in sports preparation*. – Minsk: BSUKC
2. Landa B.H. (2008). *Methods of complex assessment of physical development and physical preparedness*. – Moscow: Soviet Sport/
3. Nachinskaya S.V. (2005). *Sports metrology*. – Moscow: publishing center “Academy”.
4. Karpman V.L., Belotserkovskiy Z.B., Gudkov I.A. (1988). *Testing in sports medicine*. – Moscow.
5. Lyah V.I. (1998). *Tests of physical education of pupils*. – Moscow.
6. Aulik I.V. (1977). *How to define the training level of a sportsman*. – Moscow.
7. Blagush P. (1982). *About testing theory of motive abilities*. - Moscow.
8. Hrushev S.V. (1980). *Doctors' control over the physical education of pupils*. – Moscow
9. Makarova G.A., Loktev S.A. (2005). *Medical reference book of a trainer*.- Moscow: Soviet sport
10. Zheleznyak J.D., Petrov P.K. (2005). *The basis of scientific – methodical activity in physical culture and sport*. – Moscow: “Academy”

Accepted: October 5, 2010