



Theoretical and Practical Basis of Determining Fitness for Sports

Farkhod Turdalievich Abdullaev

Candidate of Pedagogical Sciences, Associate Professor

Institute for Retraining and Professional Development of Physical Education and Sports Specialists,
Tashkent

ABSTRACT

This article examines the principles of identifying strong talents and talented young people in the field of sports, as well as their proper training in order to predict their success in sports. When considering the problem of ability and talent in sports, first of all, it should be mentioned that none of the great athletes have achieved their best results by practicing independently from the beginning to the end. Specialists and trainers help to determine the competence and its correct application. The clearer and faster this process (sorting and orientation) occurs, the higher the characteristics that define sports achievements and their stability. The article also talks about the process of determining the unique physiological characteristics of athletes.

ARTICLE INFO

Received: 26th September 2022

Revised: 13th October 2022

Accepted: 17th November 2022

KEY WORDS: Agility, flexibility, athletics, stage, sports, muscles, shoulders, mesomorph, brachymorph, coordination ability.

Determination of fitness for sports is a multi-stage, multi-year process that includes all stages of sports training. It is based on a comprehensive study of the athlete's abilities, creating the necessary ground for the formation of these abilities, in order to ensure successful improvement in a certain sport. Many of its theoretical and methodological aspects are sufficiently revealed.

But, unfortunately, despite the fact that a number of rules of the problem have been developed, there is still no theory of determining children's suitability for sports and a whole system of sports training methodology. Usually, children come to this or that club by chance: with their friends, at the will of their parents. In the best case, the physical education teacher at the school advises him to do some kind of sport, or a trainer from a nearby secondary school can come to the school competition (in most cases on his own initiative) and see a talented child. As a result, many children play a sport that is "not theirs", spend years, but do not achieve a valuable result, and leave the sport disillusioned. Perhaps they could have succeeded in another sport. Most of the children who are capable of sports do not come to sports at all: they are not directed to it and do not know anything about their abilities.

In recent years, the reason for the failure of our athletes in the international sports fields is the lack of a system for determining the suitability of children for sports. At the same time, today, sports science has the ground to create such a system without huge financial costs.

many aspects of the problem, the development of computer technologies creates an important basis. Using computers to create a bank of information on children's opportunities and monitoring their development, that is, organizing monitoring, is considered very important in solving the diagnostic problem of determining children's fitness for sports.

Basics of the system of determination of fitness for sports. A variety of sports expands an individual's ability to master a particular sport. The fact that a person's capabilities and quality characteristics are not revealed in a certain type of sport cannot be a reason to consider him as not having sports characteristics at all. Subtle traits in one sport can lead to high performance in another.

see the perspective of sports opportunities in relation to the direction or group of a particular sport, in which case, it is necessary to proceed from the general rules characteristic of the system of determination of fitness for sports.

1. Sports ability depends to a large extent on genetic traits characterized by stability and conservatism. Therefore, when looking at the prospect of sports opportunities, first of all, it is necessary to pay attention to the less changeable signs that determine success in future sports activities.

2. Taking into account the fact that the role of genetic traits is revealed when high demands are placed on the body, it is necessary to pay special attention to the level of high results when evaluating the performance of a young athlete.

it is necessary to study conservative genetic characteristics, to determine indicators that can be radically changed under the influence of training. In this case, in order to increase accuracy, it is necessary to take into account both the rate of growth of indicators and their initial level.

4. Due to the heterochrony of the development of some functions and qualitative characteristics, there are certain differences in the structure of the manifestation of the abilities of athletes at different age periods. These differences are especially evident in children engaged in technically difficult sports, where high sports results are achieved in childhood and adolescence, and the entire period of training of an athlete - from a beginner to an international master of sports - takes place in the environment of difficult processes of the formation of a young athlete.

Stages of determination of fitness for sports. There are two periods of determining fitness for sports: the first is the selection of children and adolescents to participate in sports of their choice, and for further sports improvement (for example, to sports schools, Olympic training centers): the second period is the age for participating in responsible sports competitions. selection of athletes. The first period of determination of sports fitness consists of two stages.

The first stage involves the selection of children and teenagers to participate in the sports of their choice. The second - promising stage - selection and orientation of talented athletes for in-depth and specialized training in the chosen sport.

The second period also consists of two stages. The first (pre-Olympic) stage includes the formation of the upcoming Olympic reserve (the country's junior and youth national teams), the second - the Olympic stage - the selection and orientation of the country's national team to participate in major international competitions. includes

Selection of candidates for junior and youth national teams should be conducted among the most talented and capable athletes of sports institutions and teams. The main form of determination of fitness for sports is sports competitions. In addition to the sports results, their dynamics in the last 2-3 years, experience of continuous sports participation, compliance of the level of physical fitness with the requirements of the level of the master of sports of the international category of a certain sport are taken into account. The strongest athletes, based on the performance of the previous sports season, are accepted as candidates for entering the national sports team of their country.

The selection of candidates to enter the national team should be based on the following indicators:

- 1) sports-technical results and their dynamics in recent years;
- 2) age, anthropometric data based on the characteristics of the chosen sport, health of the young athlete;
- 3) the degree of non-reversibility of errors in the performance of important elements of sports training;
- 4) the level of development of special physical qualities that are less developed during many years of training;
- 5) the capacity of the body's functional system in performance of motor activity;
- 6) psychological stagnation when performing specific training loads;
- 7) young athlete to achieve results in a chosen sport.

and youth national teams for participation in international competitions should be carried out on the basis of the following indicators:

- 1) sports-technical results;
- 2) dynamics of sports form development (beginning, peak, decline);
- 3) the degree of non-reversibility of errors in performing important elements of sports training in extreme conditions;
- 4) the level of readiness and stability to carry out sports fighting in extreme conditions;
- 5) the state of the athlete's health, taking into account the specific characteristics of the sports specialty.

The main task of the first stage of determination of fitness for sports is to attract as many talented children and teenagers to sports activities as possible, to examine them and organize initial sports training. The appropriateness criteria for involving children in sports include height, weight, body structure. The observations of the trainer and the physical education teacher, who observed the children in physical education classes, in sports sections, district and city competitions, play an important role in determining the fitness for sports. In the research of MNTorakho'jayeva and MSBril (1980), it was proved that it is possible to carry out initial training for children to enter elementary schools in the conditions of physical education classes at school. With the help of special tools, it is possible to influence the formation of the ability of young school children to engage in any kind of sport.

examination at school and have no deviations in health are allowed to participate in the entrance tests of the first stage of sports fitness. It is necessary to take into account the proximity of the child's home to the sports facility, the views of the parents on sports activities, his ability to learn at school, and so on. If possible, it is advisable to send students to summer sports-health camps where there are ample conditions for determining their ability to do sports.

In the process of determining fitness for sports, control tests should not be aimed at determining what the entrant knows how to do.

In the second stage of determination of sports fitness, the question of meeting all the requirements of those who are separated, those who are preparing for a certain sport, is studied in depth. For 3-6 months, the trainer observes the participants in the process of sports training, control tests, and competitions, and forms educational and training groups from among the most talented children. Here, it is important to focus on the positive growth during the training, not on the initial performance of those who are going to enter the BOSM. This approach allows to determine the sports potential and ability of the participants more precisely. At this stage, indicators of the rate of growth of physical qualities and the rate of formation of movement skills serve as the main criteria for determining the perspective (motor training).

can be thought of in terms of the time spent mastering the technique of an exercise. Indicators of the rate of growth of physical qualities and the rate of formation of movement skills serve to give an understanding of the future prospects of those who are engaged in some sense.

The task of the second stage of determination of fitness for sports is to determine whether the personal indicators of young athletes can meet the requirements of the stage of high sports results in the future. At this stage, it is necessary to find an answer to the question of whether it is possible to direct the athlete to prepare for high sports results. The duration of the second stage is 1.5-2 years. At this stage, pedagogical observations, control tests, competitions, medical-biological and psychological observations are conducted. A final decision is made on the issue of the athlete's sports specialty.

At the second stage of determination of fitness for sports, the role of psychological observations increases. Strength, mobility, concentration of nervous processes are natural features of the human central nervous system and can be improved with great difficulty during many years of sports training.

The coach should pay special attention to the development of such qualities as independence, determination, goal-seeking, ability to mobilize all one's strength in competitions, activeness in sports, ability to use all one's strength at the finish line, sensitivity to unsuccessful results.

children and adolescents, it is necessary to give them control tasks in the form of competitions. It should be emphasized that it is necessary to try to develop the personality of the athlete in all aspects, not only some

specific qualities. Therefore, it is necessary to evaluate the young athlete based on various activities (competition, training, observations in laboratory conditions).

A medical examination of children's health is carried out to determine fitness for sports. Additional information about students' health can be obtained from district doctors at the place of residence. There are a number of diseases and pathologies that are the basis for not being admitted to sports schools (REMotilyanskaya, 1977). These include congenital heart diseases, hypertensive diseases, various forms of lorpathology and other diseases.

When determining fitness for sports, it is necessary to take into account the developmental characteristics of the children's organism (LIStogova, 1977). In children of junior school age, the nervous system continues to grow and develop, and by the age of 11 it reaches the peak of development. However, the younger the child, the more the processes of activation in his brain begin to prevail over the processes of slowness. This is the reason for children's high emotionality, lack of attention, and psychological instability. For children of small school age, a slight slowdown in growth and weight gain is characteristic; a temporary "stop" occurs before the period of physical maturity. This period begins in boys at the age of 13-14, in girls earlier at the age of 11-12. At the age of 8-10, children's skeletal bones have not hardened yet, their muscles are not well developed. The heart size of children of small school age increases slowly. Blood vessels are wider than adults, so children have lower blood pressure. As a result of heart contraction, the volume of circulating blood is twice less than that of adults. Therefore, children's hearts often contract to deliver oxygen as a result of blood circulation.

The upper airways of children of small school age (nasal cavity, throat, bronchi) are narrow compared to those of adults. Children's breathing rate (22-25 breaths/min.) is slightly higher than that of adults (16-18 breaths/min.).

The ability of 10-11-year-old children to maintain a high level of metabolism due to the effective functioning of the heart provides a basis for good adaptation to loads that require general endurance at this age. Due to the characteristics of anatomical and physiological development of children of this age, the aerobic capacity of the body is relatively high, which determines the possibility of using a large amount of aerobic physical loads.

After the age of 11-12, children's various organs and body systems develop rapidly. At such a young age, the nervous system is sufficiently developed. In this case, high speeds, observation of the nervous system's responsiveness, provide a basis for rapid acquisition of movement skills and difficult movement techniques. During this period, due to the functional development of the brain, the functions of vision, vestibular and other analyzers reach a high point of development.

allows to quickly identify various deviations that may deepen as a result of physical and training loads (without medical interventions) .

process of determining fitness for sports is closely related to the stages of sports preparation and the characteristics of the sport (age of starting training, age of starting advanced training in the chosen sport, selection criteria, etc.). Therefore, the criteria and methods of determining fitness for sports, as well as normative requirements, are given by sports type groups.

numerous studies, it was found that the prospects of athletes in speed-power and periodic sports are mainly determined by their physical qualities.

Complex coordination movements are determined based on sports suitability in existing sports, opening of coordination opportunities of the participants. The perspective of an athlete in sports games is determined by his unique characteristics, which can solve technical and tactical tasks in the course of sports activities. Qualifying in single combats is carried out by studying the physical qualities of a young athlete, the ability to accurately and successfully perform a complex combination of offensive and defensive actions in a limited period of time, as well as to evaluate the opponent's actions.

A number of criteria common to all sports should be mentioned:

1) Health condition; this criterion is used at all stages of multi-year preparation; the main task of medical examinations is to identify signs that prevent participation in the chosen sport;

2) The condition of the organs and systems of the athlete's body; this criterion is used at all stages of multi-year training, especially when determining fitness to continue playing sports;

3) physical development as a complex of morphofunctional indicators; this criterion is used in the first and second stages of sports fitness determination.

Features of somatic development of athletes. Athletics is the most diverse sport in terms of movement structure. It has more than 20 specialties.

In athletics, there are periodic directions that require performing exercises with maximum, submaximal, high and moderate power, and non-periodic directions - speed-power, coordinated speed-power. Body structure, somatic development characteristics have a great influence on the performance of these exercises.

S. Baranov (1925) studying the features of the body structure of sprinters performing work at maximum power (speed) found that they have short legs, medium-length body, average weight, wide chest, large lungs, good noted that they have developed muscles. A strong, broad-shouldered sprinter resembles a "smaller" version of a weightlifter.

came to the conclusion that, compared to athletes with well-developed leg tendons, those with long legs, especially the soles of the feet, are good jumpers. That is, the hamstrings affect the longer "shoulders" and can be fully shortened in length. A good high jumper requires long and graceful hamstrings, not thick, athletically built hamstrings.

Based on the analysis of previous studies and his own observations, M. Ivanovsky (1966) states the following; in sprinters - relative body length; in short-distance runners - tall, well-developed chest; in marathon runners - short stature, wide chest, well-developed calf tendons; jumpers have a tall body, short body compared to sprinters, and well-developed legs. Long jumpers have similar performance to sprinters .

According to U. Gornova and L. Schmidt, marathoners have short height, low weight, body structure and appearance compared to track and field athletes.

The research conducted by the English scientist Professor J. Tanner (1964) was devoted to the study of the characteristics of the body structure of the participants of the Olympic Games - track and field athletes. In the study of body structures of athletes, he used not only body dimensions (table), but also took photos of athletes in three positions (front, side, back) using special devices, then made comparative anthropometric observations on the photos and summarized the data.

Somatotypes with more mesomorphic features are found among sprinters. Athletes who show good results in running 400 m have long legs, broad shoulders, relatively well-developed muscles. Mixed somatotypes are not found in 400 m runners.

Long-distance runners have a narrow pelvis; their hand and ankle joints are well developed; Compared to 100m and 400m runners, leg, arm and pelvic muscles are developed.

3,000m hurdlers have better hamstrings than middle and long distance runners. In this respect, they are similar to 100m and 400m hurdlers.

The build of 50 km runners is similar to that of 1500 m runners, although they have shorter legs, chest and pelvic girths, and calf-heel development similar to 5000 m runners. 110m hurdlers have long legs and bodies. In terms of muscle development, they resemble 100m runners, but the latter have shorter legs. Leg and body performance is similar to that of the 400m and 1500m runners, perhaps with slightly better developed calf muscles. 400m hurdlers are physically similar to 400m hurdlers, but the former are a bit more handsome.

High jumpers are tall. The lowest height is 184 cm. They are distinguished from athletes of other types by the length of their legs in relation to the body, such an indicator is observed in throwers. In all other parameters, they resemble middle-distance runners.

Throwers are tall, have well-developed muscles, long legs and arms compared to the body. Throwers do not differ from middle-distance runners in terms of leg and body parameters. Discus and shot putters have larger shoulders and wider pelvises.

J. Tanner made the following conclusion: athletes' body structures differ due to performance of high-level sports exercises and certain demands on body parts from the point of view of mechanics. He noted that skeletal structure is hereditary, and once the growth period is over, it is not affected by training sessions. "Nothing can change the proportions of our skeleton," concludes the British scientist.

Research conducted in different countries of the world made it possible to conduct a comparative analysis of the somatic development of highly skilled athletes. For the analysis, the indicators of the athletes

of the Olympic Games (Gundla, Tanner), Polish youth national team Marchoka, Skibinski) and Ukrainian national team (L. Volkov) were taken.

Body length and weight. Olympic athletes in all types of athletics have long bodies compared to members of other groups. Short distance runners are an exception in some cases.

height of the participants of the two Olympic Games is close to each other. Ukrainian athletes are slightly different from Olympian-athletes in terms of height, but this cannot be said about Polish athletes (photo).

considered groups is that high jumpers and throwers are tall, and long-distance runners are short.

are slightly shorter compared to the participants of the Olympic Games in almost all types of athletics.

small difference in the weights of all group athletes. Polish athletes are quite underweight in most of the athletics. This situation is explained by the fact that they are not old, the average age is 18-19. The greatest weight was observed in throwers, average - hurdlers and jumpers, light - long distance runners.

Leg and arm length. Data obtained by J. Tanner (1964) show that the leg length indicators of the Olympic Games participants are slightly larger than those of the athletes of the Ukrainian and Polish teams.

The lowest indicator of leg length (in almost all types of athletics) belongs to Polish athletes. The indicators of Ukrainian athletes participating in the Olympic Games are close to each other.

400m and 110m hurdlers, high jumpers, discus and hammer throwers draw attention to the length of their legs.

Separate groups cannot be distinguished by arms length; the only exception is the discus throwers, who have high indicators of this sign.

Hip and pelvis diameter. According to the analysis, this indicator is high among the athletes of the Ukrainian national team, average among the participants of the Olympic Games, and small among the Poles.

The largest diameter belongs to tall athletes - heavy throwers. This figure is lower in long-distance runners .

pelvic indices, the symptoms of athletes in different sports groups are similar to those above.

Waist and pelvic girth . According to shoulder girth indicators, in almost all areas of athletics, the greatest indicators belong to the athletes of the Ukrainian national team, the lowest - to Polish athletes. These characteristics are quite different in throwers compared to other representatives of athletics.

pelvic girth between mixed group - Olympians and Ukrainian and Polish athletes.

The largest indicators are in throwers, the smallest - in short-distance runners and comparing the body structure of athletes of different national teams, there was no difference in longitudinal indicators, there was a non-significant difference in lateral.

of the researches, in order to achieve high results in different areas of athletics, the athlete must have certain anthropometric parameters and the appropriate level of somatic development that can affect sports results along with other systems of the body. should be.

Swimming is a periodic sport like some areas of athletics, and although it requires work in various capacities, it differs sharply from other sports specialties in terms of conditions. Here, the structure and shape of the body is of great importance. According to morphological indicators, athletes with a good height, a good ratio of body length and transverse parameters, horizontal stability and high buoyancy quality, and an even distribution of subcutaneous fat layer can be called ideal athletes.

American scientist T. Cureton (1978), using Sheldon's classification, determined that sprinters are mesomorphs among international swimmers, and 400 and 1500 m swimmers are endomorphs.

If swimmers are compared with representatives of other sports, their indicators in terms of body, leg and arm length are clearly visible.

According to A. Strokina (1964) , swimmers have a relatively short body, long legs and calves, are mesomorphic and brachymorphic in terms of proportions, and female swimmers are tall and medium-sized, straight. ri and evenly distributed subcutaneous fat, owners of well-developed arm muscles.

According to Ambruster (1956), one of the foremost experts on swimming, anatomical parameters are the most important for a swimmer. So long arms are good leverage, but they are only useful if you have strong arm and shoulder muscles. Thin but strong pelvis. The legs of the sprinter-swimmer are straight and strong,

long and elegant. The sole of the foot should be long, thin and flexible, with freedom of movement similar to that of a fish tail.

N. Bulgakova (1986) says that some swimmers conform to the natural lines of fluidity by the shape of their pelvis. Such swimmers have a narrow pelvis and a small flat stomach. They have a certain advantage over swimmers with a large pelvis and abdomen. Swimmers with a wide pelvis have to overcome greater water resistance, as the water flow passes through the wide pelvis and around the abdomen, increasing the resistance due to rotational movements.

Sports and rhythmic gymnastics. The famous Ukrainian sports anthropologist O. Nedrigailova (1964) drew attention to the long body and strongly developed shoulder girth of gymnasts. We see full data on indicators of body structure characteristics of representatives of this sports specialty in the works of other anthropologists.

Lutovinova and M. Utkina (1965), gymnasts are of medium height, the upper part of the body, mainly the shoulder girth, has wide and strongly bulging muscles. The lower part of the body seems to be slightly relieved; thin waist, narrow pelvis, slender and slightly bulging muscular legs. The body is relatively short, the upper part of the body is elongated due to the low points of the shoulder girth, so the neck appears long. Abdomen is flat, waist is wavy. Because the shoulder girth and back muscles are so well developed, gymnasts look a little curvy. Representatives of this specialty of sports belong to the mesomorphic type and have a slight tendency to dolichomorphy.

long necks because the shoulder girth points are slightly downward. The bodies are long, the pelvis and waist are located lower. The shoulders are relatively wide. Breasts are poorly developed, but the chest circumference is relatively wide. Muscles are developed evenly throughout the body. They usually have flat stomachs and slim waists. According to the results of the conducted research, women rhythmic gymnasts also have their own characteristics. For comparison, indicators of female athletes specializing in sports and rhythmic gymnastics and a control group who participated in the program of the Institute of Anthropology of MSU were taken.

References

1. The Law of the Republic of Uzbekistan "On Physical Education and Sports", 2015 .
2. Ministry of Public Education of the Republic of Uzbekistan, the Ministry of Physical Education and Sports of the Republic of Uzbekistan, on the norms of sports equipment and equipment in sports halls of children's sports complexes and general education schools, sports halls of colleges and academic lyceums Decisions of the Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan, the Ministry of Economy and Industry of the Republic of Uzbekistan, the Ministry of Finance of the Republic of Uzbekistan, the Standardization, Metrology and Certification Agency of the Republic of Uzbekistan (Compendium of Laws of the Republic of Uzbekistan No. 46,502 pages 2009).
3. Resolution PQ 3031 of the President of the Republic of Uzbekistan dated June 3, 2017 "On measures to further develop physical education and mass sports".–
4. 2017 of the President of the Republic of Uzbekistan Resolution PQ –3196 dated August 10 " On wide involvement of Uzbek athletes who have achieved high results in prestigious international sports competitions in public and sports activities and encouragement of athletes and their trainers" .
5. Olimov MS, Shakirjanova KT, Rafiyev HT, Smuriygina LV, Tokhtaboyev NT and others. / Textbook. Single combat, coordination and cycle sports "Athletics". - Tashkent, 2018.
6. Olimov MS, Shakirjanova KT, Rafiyev HT, Tokhtaboyev NT, Smuriygina LV and others. / Textbook. Theory and methodology of athletics. / - Tashkent, 2018.
7. Olimov MS, Soliyev IR, Haydarov B.Sh. / Textbook. Improving sports pedagogical skills. - Tashkent.: 2017
8. Abdullaeva BP Using information and communication technologies in teaching process of various primary school subjects. European Journal of Research and Reflection in Educational Sciences, 8 (10), 67-70. Progressive Academic Publishing, UK www.idpublications.org 14.10.2020

9. Abdullaeva BP Methodology of organizing football lessons in a preschool educational institution Bosma Academic research in educational sciences, Issue 3, 2020, pp 777-783.
10. Abdullaeva BP Organization and methodology of conducting football lessons in a preschool institution Bosma ACADEMICIA: An International Multidisciplinary Research Journal <https://saarj.com> ISSN: 2249-7137 Vol. 11, Issue 1, January 2021 Impact Factor:
11. Abdullaeva BP Organization of physical training in preschool educational organizations and primary classes Bosma ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES VOLUME 2 | ISSUE 3 | 2021 ISSN: 2181-1385 Scientific Journal Impact Factor (SJIF) 2021: 5.723
12. Abdullaeva BP Teaching A Child To Play Football From A Youth
13. Bosma The American Journal of Interdisciplinary Innovations and Research (ISSN–2642-7478) Published: April 30, 2021 Pages: 147- 151
14. Abdullaeva BP Football as a means of physical education CURRENT RESEARCH JOURNAL OF PEDAGOGICS - 2767-3278 02-08-16 Accepted 26th August, 2021 Analysis of the Level of Proficiency in the Elements of Playing Football by
15. Abdullaeva BP Children of Senior Preschool Age International Journal of Multicultural and Multireligious Understanding <http://ijmmu.com> editor@ijmmu.com ISSN 2364-5369 Volume 9, Issue 4 April, 2022 Pages: 110-115
16. Abdullaeva BP Physical Education of Preschool Children Cultivate Qualities International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET) | e-ISSN: 2319-8753, p-ISSN: 2347-6710 | www.ijirset.com | Impact Factor: 7.569 | | Volume 11, Issue 3, March 2022 | | |
17. Olimov MS, Tokhtaboyev NT, Soliyev IR, Ortikov XT /Methodology of middle and long distance running. Study guide. "Science and technology", T.: 2016. 156 pages.