

**TOPIC: EFFECTIVE METHODS OF EDUCATING THE PHYSICAL  
QUALITIES OF SCHOOL STUDENTS****Turdiyev Azzam Xasanovich**Toshkent xalqaro moliyaviy boshqaruvi va  
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**Annatsiya:** Respublikamizda jismoniy tarbiya va sport sohasidagi asosiy masalalardan biri yosh avlodni jismoniy tarbiya hamda sport bilan muntazam shug‘ullanishini ta’minlash hisoblanadi. “Jamiyatimizda sog‘lom turmush tarzini shakllantirish aholini, ayniqsa yosh avlodni jismoniy tarbiya va ommaviy sport bilan muntazam shug‘ullanishi uchun zamon talablariga mos shart-sharoitlar yaratish hamda jismoniy tarbiya va ommaviy sportni yanada rivojlantirish”<sup>1</sup> masalalari muhim ahamiyat kasb etmoqda. Bugungi kunda, umumta’lim maktablarida olib boriladigan jismoniy tarbiya mashg‘ulotlari samaradorligini oshirish.

**Kalit so‘zlar:** maktab, jismoniy tarbiya ,kuch va tezlik, egiluvchanlik, koordinatsiyali harakatlar,signal, hushtak, qarsak.

**Abstract:** One of the main issues in the field of physical education and sports in our republic is ensuring that the younger generation regularly engages in physical education and sports. The issues of “forming a healthy lifestyle in our society, creating conditions that meet the requirements of the times for the population, especially the younger generation, to regularly engage in physical education and mass sports, and further developing physical education and mass sports”<sup>1</sup> are of great importance. Today, increasing the effectiveness of physical education classes conducted in secondary schools

**Keywords:** school, physical education, strength and speed, flexibility, coordinated movements, signal, whistle, applause.

Physical education for school-age children plays an important role not only in improving their general health, but also in the formation of important life skills. Exercises aimed at developing physical qualities help to improve the child's coordination of movements, strength, endurance and flexibility. Currently, in addition to traditional methods, innovative approaches and modern training methods are widely used in physical education lessons and clubs. This article discusses effective methods for educating the physical qualities of schoolchildren, their scientific and pedagogical foundations and ways of practical application.

Physical qualities are one of the most important factors determining human motor activity, which directly affect success in sports and everyday life. The development of these qualities in school-age children contributes to their general physical development and the effectiveness of playing sports.

Basic physical qualities - In the physical training of students, special attention should be paid to the development of the following important qualities;

Speed (speed of movement) - A person's ability to perform certain actions in the shortest possible time. Developed through sprinting and reaction exercises.

#### Strength

The ability of muscles to resist a certain load or to move with force. Developed through pull-ups on the horizontal bar, exercises with dumbbells.

Endurance, the body's ability to withstand physical exertion for a long time. Developed through activities such as long-distance running, swimming, and cycling.

#### Agility (coordination of movements)

The ability to move quickly and flexibly. Developed through active games and gymnastic exercises.

Flexibility: The ability to bend and stretch the body in the desired direction.

Developed through gymnastics and stretching exercises.

The questionnaire questions collected and analyzed information on the general health of primary school students, their interest in physical education classes, the role of sports in a child's life, the effective use of students' free time from classes, and the stratification of physical fitness indicators. To the question "How do you feel after classes?", the students answered as follows: 58% "good", 11% "I want to take another class", 23% "I'm tired", 8% "I have a headache". At what age do you think it is best to start playing sports? answered our question as follows: 17.3% "up to 7 years old", 12.4% "7-8 years old", 6.8% "9-10 years old", 15.7% "11-12 years old", 48.1% answered that it is advisable to engage in sports "after 12 years old" (see Figure 1)

Age Group	Percentage
Up to 7 years old	17.30%
7-8 years old	12.40%
9-10 years old	6.80%
11-12 years old	15.70%
After 12 years old	48.10%

Figure 1. The age period that primary school students consider the most advisable to start engaging in sports (in %)

What do you think is your physical fitness level? To the question, 28.4% of the respondents answered "very high", 19.5% "good", 36.4% "average", 15.7% "low".

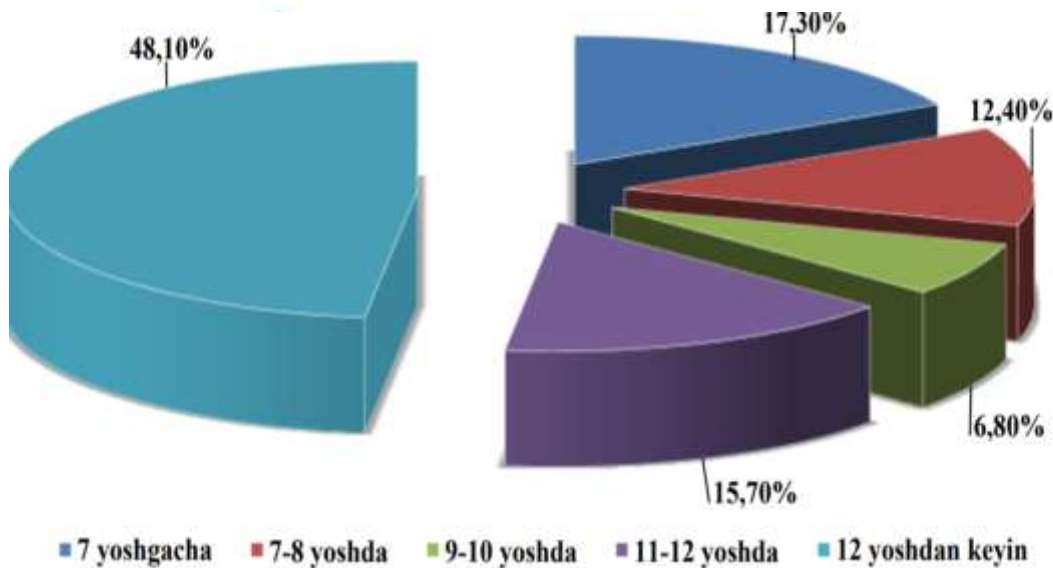
To the question, "What do you think is your physical fitness level?", 28.4% of the respondents answered "very high", 19.5% "good", 36.4% "average", 15.7% "low". To the question, "What do you think causes the decline in physical fitness?", 36.7% answered "medicine", 21.5% "sleeping too much", 8.3% "eating too much", and only 29.7% of the respondents answered that a separate set of exercises appropriate to physical qualities has not been developed (see Figure 2).

Development of physical qualities according to age characteristics

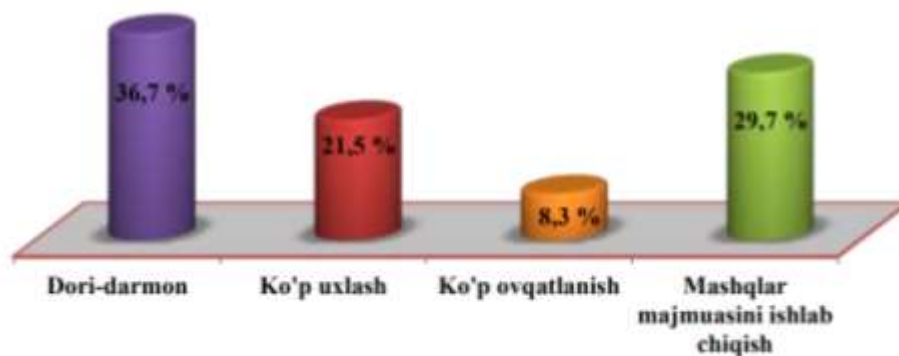
At each age stage, the level of development of physical qualities is different;

7–10 years old - agility and flexibility develop rapidly.

11–14 years old - the most effective stage for developing speed and endurance.



When asked what do you think your physical fitness level is, 28.4% of respondents said it was “very high,” 19.5% said it was “good,” 36.4% said it was “average,” and 15.7% said it was “low.” When asked what factors do you think contribute to a decline in physical fitness, 36.7% said it was “medication,” 21.5% said it was “too much sleep,” 8.3% said it was “too much eating,” and only 29.7% said it was because a specific set of exercises tailored to physical qualities had not been developed (see Figure 2).



### Development of physical qualities by age characteristics

**At each age stage, the level of development of physical qualities is different;**

**7–10 years old - agility and flexibility develop rapidly.**

11–14 years old - the most effective stage is the development of speed and endurance.

15–18 years old - great attention should be paid to increasing strength and endurance.

Taking these stages into account, it is advisable to organize training on the basis of an individual approach.

A person's strength is the ability to overcome external resistance or resist external forces, or to perform a useful action. First of all, a person tries to influence a stationary object (sports equipment - throwing, jumping, gymnastic exercises), and secondly, he maintains the initial static position of the body under the influence of external forces. Such forces can also arise from external influences. For example, in boxing, opponents' blows, body weight or hanging, holding a corner. The psychophysiological mechanism of this quality is associated with the regulation of muscle tension, the mode of its operation is associated with the conditions. Muscle tension depends on the work of the central nervous system, will, and the peripheral divisions of the motor system. In general, muscle tension is divided into: 1) the frequency of impulses from the center to the muscles (the higher the frequency, the greater the muscle tension); 2) the number of forces included in the unit of movement; 3) the excitability of the muscles and the presence of energy sources in them. Types of strength abilities are divided depending on the characteristic aspects of the muscle tension regime. In static mode and slow movements, individual strength abilities are divided into strength-speed abilities, during fast movements. The ability to generate a lot of force in a short time is called explosive strength. Types of strength abilities are distinguished by the nature of their performance in combination with the mode of muscle tension. In static mode and slow movements, speed is divided into strength abilities (dynamic strength), personal strength abilities that appear in fast movements. This is explosive

strength, that is, the ability to exert the greatest amount of force in a short time. In jumping, for example, it is manifested in agility.

Schoolchildren; Speed and its development Speed characteristics of movement and activities are combined with general exercises. The source of effectiveness in the development of high-speed movement abilities performed in a short time (within 10-20 seconds) is a metronome, rhythmic music, the teacher's voice, signals (applause, whistle), its gradual increase at the assigned pace and in competition conditions (who will repeat more in a given time). Consists of general development and specialized exercises.

Here are some of these exercises:

— Perform as many exercises as possible within 5, 10, 15 seconds (clapping your head, rotating your arms, increasing the number of steps while running in one place, jumping to a certain height in one place, skipping rope, sit-ups, lifting dumbbells and stones simultaneously and continuously);

— Run for a short distance (10-80 m);

— Throw stuffed balls, grenades, tennis balls at a certain time. In order to develop motor reactions, special exercises are used to help students respond quickly to a signal. Examples of such exercises:

— Walk in a circle, run. Perform an exercise as quickly as possible (sit-ups, turns, hand claps) on an unexpected signal (whistle, clap). Each movement is performed 2-3 times at a speed of 2-3 times;

— quickly hit the balls into the target on a signal;

— perform exercises on a quick start on a signal;

— perform general development exercises (arm and leg movements, sitting and standing, turns and body bending) on the subject and on a given signal. Successful training of speed reaction (95-100% of maximum capacity)

— is possible only when using the intensity of movement close to the norm and exceeding the norm. To improve the speed reaction, it is of great importance to develop a sense of time in students. For this purpose, students are regularly offered three different tasks in a row: 1) after completing the speed exercise, the teacher announces the time spent on the task to the students; 2) the time is not announced to the student, he must determine the time himself; 3) the student must complete the speed exercise in the given time. The most basic exercises for developing speed of reaction are active and sports games.

Developing agility in schoolchildren; Agility is defined, firstly, as the ability to quickly and firmly master new complex coordinated movements (quick learning ability), and secondly, as the ability to quickly restore movements and activities based on a sudden change in conditions. In developing agility, the improvement of the function of movement analyzers is of great importance. The higher a person's ability to perform precise movements, the faster he will master new movements. A rich arsenal of various exercises that help develop coordination abilities is active and sports games, gymnastics, acrobatics. Therefore, such exercises are most often used in the physical education of students. These resources fully contribute to the development of agility. The development of special agility is carried out through the use of preparatory exercises that are close to competition exercises in terms of their characteristics. The effectiveness of dexterity training, especially in junior and middle school students, is observed in the process of rapid development of movement, vision, hearing, tactile (body sensitivity) and other analyzers. In school lessons and exercise classes, dexterity exercises should be performed at the beginning of the preparatory and main part. In conditions of fatigue, dexterity develops less effectively. The following exercises can be recommended to improve the differentiation of muscle tension: a) long jump from

a standing position, triple jumps to a given distance; b) multiple jumps to a given height; c) throwing balls to a given distance and target (soccer balls, tennis, basketball, etc.). To improve the ability, it is necessary to differentiate exercises: a) raising (arm, leg) to a specified and unspecified and specified angle (30, 45, 60, 90, 120 °), with the elbow bent and improving the amplitude of movement; 2) m taking a certain number of steps, turns at a certain distance segment (10, 20, 50, 60, 100 m)

Training and development of endurance of schoolchildren; General training, special training and competitive exercises are used as a source of endurance training. Exercises that depend on the effect on the body are divided into general exercises (running, swimming, etc.) and local exercises (multiple lifting of arms and legs). Local exercises increase the activity of individual muscles that are lagging behind in their development, increasing the components of strength, speed, endurance. In the development of general endurance, continuous or intermittent exercises are used - 25 - 30 minutes and 50 and 120 minutes for beginners, for those with some training (running, swimming, rowing), cycling, and longer continuous periods.

Flexibility training is most effective if it is started at the age of 10-14, or if it is started at the age of 14 and later, it is more difficult to improve joint mobility. Joint mobility develops at the age of 10-14, and in older students it is twice as effective. Flexibility is determined by the degree of bending of the body forward, backward, and to the sides. To determine the degree of flexibility of the body, it is necessary to stand on a bench and bend forward to the end without bending the knees. The distance (cm) is measured from the edge of the bench to the third finger of the hand. If the fingers do not reach the edge of the bench, the degree of mobility is indicated by a minus sign, if they go down - by a plus sign. A good indicator of joint flexibility is determined by the difference between Q10 and Q16 cm. The entire process of developing flexibility can be divided into three stages: the stage of "Joint gymnastics"; the specialized stage of developing mobility; the stage of maintaining joint mobility at the achieved level. The task of the "Joint gymnastics" stage is not only to develop the general level of active



and passive mobility in the joints, but also to strengthen the joints themselves, exercise and adjust the musculoskeletal apparatus, making them flexible. At this stage, "working out" of the joints is also carried out. The special stage of developing joint mobility is to solve the task of developing maximum amplitude in certain movements, helping to master sports techniques more quickly, and on this basis to improve the result.

**Conclusion:** The use of a monitoring methodology aimed at stratifying the level of physical development and physical fitness of schoolchildren and aimed at improving their functional state in the process of classes in secondary schools allows: - the lack of a unified electronic system for identifying, collecting and recording data on the physical and functional development and physical fitness of students in secondary schools, monitoring the dynamics of physical development and physical fitness of primary school students, reduces the effectiveness of training and complicates the monitoring process. The four-stage physical training proposed by us, aimed at assessing the physical fitness of children and creating a functional base, allows teachers to determine the effectiveness of their motor activities. - the application of test criteria for determining the physical development and physical fitness of primary school students to the educational process allows for online monitoring of the process of stratifying the readiness of students by continuously entering the data into a computer program. - the use of a differentiated methodology in determining the volume and standard of loads on the body in physical education and extracurricular activities of schoolchildren, improving the functional state of students with different levels of physical fitness, gives confidence in improving the functioning of the cardiovascular system. 2. When using schoolchildren in lessons, it is necessary to increase the number of general and special developmental exercises in all sections of the program. Also, exercises should be selected in such a way that students in the group can continue to develop their abilities, and weaker students can successfully fulfill the requirements of the program. 3. In the development of the physical qualities of schoolchildren, it is necessary to use special complex exercises, organized by us, to increase the mobility

of body joints through exercises separately allocated for each physical quality, taking into account the age and gender of students, and to follow methodological recommendations when performing exercises. 4. It is recommended to comply with the requirements for conducting physical education classes and extracurricular activities when using a number of special test criteria aimed at monitoring the physical fitness and health status of schoolchildren.

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