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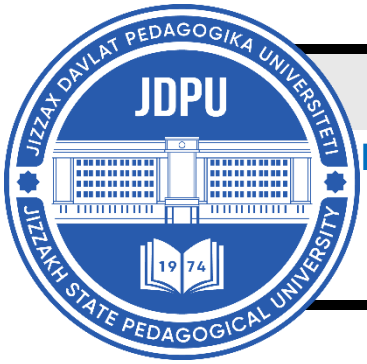

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AGE-RELATED NORMS OF THE DEVELOPMENT OF BALANCE FUNCTION IN CHILDREN AGED 9-10 YEARS

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ABOUT ARTICLE

Key words: static and dynamic balancing, physical development, special physical training, training, coordination abilities, control test, performance.

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Abstract: The article presents a discussion of the conducted pedagogical experience in the use of physical education tools and their results, taking into account age-specific features in the development of balancing function in children aged 9-10 years in organizational learning.

INTRODUCTION

Today, the primary education system is of public importance, since it contains a national education system aimed at the comprehensive development of the child's personality, creating favorable conditions for normal life. Scientific research conducted in recent years shows that due to a sedentary lifestyle, the number of children who lag behind in their development, including in the development of the ability to maintain balance, is growing. That is why measures to develop new pedagogical techniques, technologies and approaches in physical education of children remain one of the priorities. The shortcomings of the methodology of physical education, the irrational organization of motor activity of young children are considered by scientists as an urgent problem of the sphere of the educational system of children of this age.

In the republic, attention is increasing to the issues of fundamental improvement of the education system, comprehensive intellectual, moral, aesthetic and physical development of children, their qualitative preparation for the educational process through education, the introduction of modern educational programs and technologies. Taking into account this information, one of the urgent tasks is the issue of effective organization of the educational and wellness process of primary school students [2].

THE MAIN RESULTS AND FINDINGS

It consists in the development of proposals and recommendations for the development of the balance function in 9-10 years of age by means of physical education.

To create special physical exercises for the development of balance function in children aged 9-10 years during extracurricular activities;

The use of physical education tools to ensure the continuity of indicators of physical development, the level of physical fitness of children aged 9-10 years in extracurricular activities.

The correspondence of coordination abilities to the function of balance, i.e., the ability to rearrange actions in standard and unforeseen situations in rapidly changing situations, is studied. However, this opinion can be attributed to the number of unconfirmed data in terms of the large number of facts that have arisen in practice and the research data obtained. Since the 20s, the scientifically based ability to learn quickly has proven to be really reliable. Thus, it can be said that an individual may be more successful than others in learning some movements (for example, acrobatic or gymnastic), but in others (for example, in mastering technical and tactical, sports and game movements) may turn out to be one of the most unsatisfactory.

Various physical exercises are used to develop the balance function in younger schoolchildren.

The coordination group of exercises, especially focused on general training, is extensive and diverse. Their use in elementary school is considered to be much higher than in junior and secondary schools.

Table 1

The content and forms of coordination exercises for general and special training

T/p	General training	Special training
1	Enriching the content of life skills - this category is represented by new exercises or new versions of old exercises.	Auxiliary exercises that help to develop and strengthen technical skills (forms of movement) and movement techniques
2	Increased motor activity is expressed in general developmental exercises, both individually and in pairs, with objects of this category (balls, clubs, skipping rope, rings, ribbons, uneven bars; These exercises can be relatively simple and variable. Under certain conditions, very difficult exercises in which body parts are performed in various changing situations	Special, developmental exercises aimed at mastering exercises. The division into formative and developmental exercises is quite conditional.
3	All-encompassing elements of acrobatics and gymnastics, throwing, jumping and running exercises, sports games that place high demands on coordination of movements.	Adaptation to spatial movements, kinesthetic differentiation, rhythm, vestibular stability, balance, etc.;
4	The main attention is paid to individual psychophysiological functions that ensure optimal	Exercises that develop and improve special perception (feeling

	regulation and control of their movements (expressed by exercises to develop a sense of time and space, as well as the degree of muscle tension).	of water, ball, objects, tape, various special sports items, etc.).

From the point of view of improving general and special training, balance exercises can be performed in the form of games and competitive exercises (especially singles, haralats and athletic games), this is to a certain extent an effective means of developing coordination abilities (see the table -1).

First of all, When developing specific coordination exercises, it is necessary to select or re-develop the maximum possible control test tasks that define relative and absolute indicators that can characterize the characteristics. These tests should then be validated through research.

Evaluation tests will be available to everyone or children of a certain age and gender group and will allow you to get differentiated results indicating the level of development of certain Kqs. The tests do not include complex motor skills that require extensive special training.

Table-2

Tests aimed at monitoring the degree of development of the balancing function

T/r	Control tests	Structure and requirements
1	Long jump from still position (by different methods)	To the side (left or right) to bounce back from the main standing position. This method is determined by dividing the base position by the length of the forward jump, the closer this number is to one, the higher the development of coordination abilities when applied to jumping exercises.
2	3x10 or 4x10 Shuttle running	The time difference between the execution of these tests is taken into account. In the first case, the relative indicator of coordination abilities used for running is estimated, in the second, the absolute indicator is taken into account.
3	Jumps from marked elements	Standing on an object standing higher (this is, for example, 0.5 m in height. and the width is 0.2 m. there may be a gymnastic seat), jumps to the ground. This takes into account the difference in the height of the jump from the starting position.
4	Throwing various objects	For example, sitting with your legs apart and throwing a tennis ball from behind your head for a certain distance, first with your leading hand, and then with your non-dominant hand. The accuracy of the coordination movement is determined in relation to the movement of the object, and attention is paid to the distance and force of the throw.
5	three times forward rotate the body in a circle	This test is determined by the execution time. Then the flip is repeated with the requirement to perform the movement twice as slowly, and the mistakes made during the movement are taken into account.

6	Throwing various objects aimed at accuracy	For example, It is possible that the most effective result when throwing a tennis ball at a distance separately for each hand at targets of different shapes is from 25 to 50%. Kqs determined by their participation in precision-oriented throwing movements, as well as their ability to distinguish between spatial and force indicators of movements.
7	10m. running	Change the direction of movement and run in three columns only on the left and right. Similarly, but the control test is performed when carrying the ball with only the left and only the right foot (hand), the resulting of these movements is determined by time. These tests allow you to evaluate the kq applicable to sports and gaming activities, as well as adaptive abilities.
8	Movement games with a goal	For example. Relay teams aimed at a comprehensive assessment of coordination abilities, such as "ball wrestling", "hunters and ducks", "Chase".

It is often effective to use the above tests to monitor the physical fitness of primary school children, including the ability to maintain balance. Through the use of the above regulatory tests, it was found that the indicators for determining coordination abilities are highly reliable. In the course of our study, the indicators of the balance of boys and girls were determined at the beginning and at the end of the study (See table-3).

Table-3

Dynamics of changes in indicators of static equilibrium in boys and girls aged 9-10 years in the experimental group during the period of pedagogical research

№	Control tests	Gender	At the beginning of the study		Upon completion of the study		t	P
			$\overline{X}$±σ	V %	$\overline{X}$ ±σ	V %		
1	Maintaining static balance on one leg (s)	B	6,4±0,54	8,82	7,3±0,39	4,85	4,7	<0,001
		G	7,5±0,38	5,06	8,1±0,42	5,26	2,8	<0,01
2	Static balancing on one leg with closed eyes (s)	B	4,33±0,61	14,08	4,44±0,63	14,18	1,06	>0,05
		G	5,56±0,52	9,35	5,86±0,41	7,99	3,87	<0,001
3	Keeping the balance on two legs (s)	B	61,7±7,13	11,55	63,1±7,15	11,32	1,68	>0,05
		G	78,41±8,19	10,44	82,63±8,84	10,69	2,85	<0,01
4	Balancing on two legs with your eyes closed (s)	B	10,22±1,50	14,67	10,72±1,71	15,95	1,84	>0,05
		G	10,22±1,50	14,67	10,32±1,44	13,95	0,57	>0,05
5	“Swallow” position to be hold (s)	B	3,72±0,42	11,29	3,98±0,42	11,25	3,70	<0,001
		G	5,12±0,56	10,93	5,24±0,54	10,30	1,55	>0,05
6	Holding the Swallow position with your eyes closed (s)	B	1,61±0,11	6,87	1,75±0,15	8,57	6,06	<0.001
		G	1,51±0,12	6,75	1,62±0,14	8,64	5,13	<0.001

Note: All control tests were conducted based on the requirements of the G. Romberg test. B -boys, G – girls.

During our study, control tests were used to determine such as static balancing on one leg, static balancing on one leg with eyes closed, balancing on two legs, maintaining balance on two legs with eyes closed, the swallow position without closing the eyes and the swallow position with eyes closed. the degree of development of the balance function in children aged 9-10 years. At the beginning of the study, the physical development and physical fitness of boys and girls were sorted by indicators close to each other. By balancing general and special training through the use of categories and forms of exercises during extracurricular activities, it was possible to determine and develop age-related indicators of physical fitness of children aged 9-10 years.

CONCLUSION

Conclusion on the spot, we can say that, One of the most important tasks is the optimal tool for the formation and development of the function of maintaining balance in children of this age, as well as adequate assimilation of the age characteristics of students for the selection of styles. Due to the comprehensive use of tools for the development of coordination abilities, taking into account scientific and methodological data and individual characteristics of students presented from our university, an 11.5% improvement in the ability to maintain static balance in children aged 9-10 years was achieved.

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