

The importance of dance training for beginners in rhythmic gymnastics

Annotation

International rules for rhythmic gymnastics place high demands on the sports training of gymnasts. At the same time, dance training is especially highlighted, since the compulsory program includes two series of dance steps, in addition, the entire sports composition must be accompanied by characteristic movements of the musical composition used. In this regard, it was interesting how dance training would affect the development of psychomotor abilities of beginning gymnasts. The article presents a methodology for dance training of an educational and training group of girls involved in rhythmic gymnastics, as well as an experimental substantiation of its effectiveness.

Keywords: rhythmic gymnastics, dance training, beginner gymnasts

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Introduction

Continuous growth of results requires the search for new forms, means, and methods of working with young athletes. Purposeful long-term training and education of high-class athletes is a complex process, the success of which is determined by a number of factors. One of these factors is dance training and the identification of more effective ways, means, methods by which you can achieve the highest results in a minimum period of time. Due to a sharp decrease in the age at which rhythmic gymnastics begins in recent years, young gymnasts must perform a competitive program in three or more all-around events as early as 8-9 years old. Within one or two years, it becomes necessary to teach girls exercises with different objects that differ from each other in many characteristics. Therefore, dance training becomes important and is one of the significant tasks of the educational and training process.

Currently, competitive compositions of female athletes must include not only gymnastic difficulty and apparatus difficulty, but also dance difficulty in the form of a series of dance steps.¹ At the same time, in order to achieve a high level of performance of competitive compositions, it is necessary to train not only the fine technique of the subject and elements of the body, but also to hone artistic skill, which is expressed in appropriate movements of the hands, head, body to the chosen music, as well as in facial expressions and “presentation” of character.^{2,3}

The choice of this topic is very important, since the coach must know that the success of a gymnast’s performance lies not only in excellent command of special elements and technical training, but also in the ability to dance and move beautifully in accordance with the chosen music.^{4,5}

From these positions, a hypothesis was put forward: it was assumed that the targeted use of dance means of various directions and styles in the system of educational and training sessions in rhythmic gymnastics would increase the level of sports training of young athletes, and would also contribute to the improvement of their technical skills.

Purpose of the study: Improvement of the system of sports training for rhythmic gymnasts.

Research objectives: Identify the means of dance of various directions used in aesthetic and artistic sports; determine the level of psychomotor development of girls involved in rhythmic gymnastics; to substantiate the methodology of dance training for young gymnasts.

The research methodology is represented by testing psychomotor abilities (Motor coordination; Senses: rhythm, tempo, space, balance; Musical abilities: ear for music, musical memory; Dance test); pedagogical experiment, represented by experimental methodology; methods of mathematical processing and interpretation of statistical data - Student’s t-test.

Experimental methodology for dance training of rhythmic gymnasts 7-8 years old

Classes in rhythmic gymnastics are structured in the form of a lesson. The duration of the lesson was 90 minutes, which is associated with the functional and mental characteristics of the development of the child’s body at this age. Each lesson consists of 3 main parts: preparatory, main and final.

Preparatory part

All classes last 25-30 minutes and use drills, turns, steps and jumps in the indicated direction. Walking with even, wide steps with free, natural arm movements was also suggested; running is easy, rhythmic, changing direction according to a conditioned signal. When walking and running, it is necessary to adhere to the specified pace and the ability to quickly change it.

A set of exercises of a dance nature is performed, using the means of rhythmic gymnastics of the main group (balances, bends, turns, jumps, waves, swings, swings; dance and ground movements). At the end of the preparatory part, stretching is carried out for the lower body in order to prepare the joint apparatus for wide-amplitude movements in the main part of the training.

The entire preparatory part is carried out with musical accompaniment. For this purpose, music is carefully selected and composed taking into account the age and interests of children, as well as its rhythm and tempo characteristics. As part of the pedagogical experiment, in the preparatory part of the training, the maximum amount of time was devoted to dance training.

The warm-up was structured in such a way as to perform as many different dance movements as possible within 20 minutes. Since the competitive compositions of the gymnasts are completely different in style, the warm-up included dance movements of several dance styles:

- i. waves with arms and body - gentle and smooth movements, which are the basis of such modern dance as modern jazz and contemporary;
- ii. “eight” hips and various elements from the Latin American program (various types of cucarachas from rumba, basic steps of tango and foxtrot, fast kicks and fine footwork, which is basic for jive);
- iii. basic steps and hand work of folk dance (Russian, Moldavian, Ukrainian, Italian).

Based on the basic step and several modifications, dance sequences were created and performed as a warm-up.

Thus, not only the technique of working the body, arms, and head was honed, but also a certain cardio load was given, necessary for this sport.

Every month a new dance sequence was compiled within the framework of a new style and direction. This is what made it possible to study the maximum range of movements and diversify the content of training. Alternating various activities of the body, arms and legs helped to achieve the desired result. Gymnasts have become much more flexible and graceful. Their compositions were formed in a more stylized manner; The competition program has become more diverse, and girls can perform their compositions to music of different styles.

Main part

Main part classes (40-45 minutes) is aimed at learning and improving the basic compositional elements that make up competitive exercises, both without an apparatus and with objects: a ball (throws, transfers, returns, catches; interceptions, passes, rolls) and a rope (rotations, spinners; circles, spirals, windmills; throws; jumps).

In the main period of the macrocycle of sports training, the compilation and learning of competitive compositions takes place, both in a group and in a frontal way of organizing gymnasts, since at this age it is extremely rare for children to demonstrate an individual program in rhythmic gymnastics. This is due to their age period of development of psychomotor functions.

The music of the main part of the lesson consists of compositional competitive exercises. Girls learn to coordinate movements with music, as well as express the character of a musical piece through motor plasticity.

Final part

All classes last 10-15 minutes, where stretch exercises were used. Musical and rhythmic outdoor games were held⁶ with the aim of developing a tempo-rhythmic sense, musicality, which is a necessary condition for the development of psychomotor abilities of gymnasts.

Research results and discussion

The duration of the experiment was 10.5 months – one educational and training cycle, in which 14 children, students of the “IP-2” group (initial preparation of the 2nd year of study), participated.

To identify the effectiveness of the developed methodology, within the framework of a pedagogical experiment, testing of the

motor abilities of the examined female gymnasts was carried out, determining the parameters of dance readiness.

Testing involved initial data taken from children before introducing the developed methodology into the educational and training process, and final data representing the final testing of the studied parameters. The obtained results of psychomotor abilities demonstrate positive changes, which can be viewed in Table 1.

Table 1 Dynamics of average group indicators of psychomotor abilities of girls involved in rhythmic gymnastics

Parameters	$\bar{X} \pm m_{\bar{x}}$			
	initial	final	t	ρ
Motor coordination	10.3±0.88	14.7±0.97	4,887	< 0.001
rhythm	6.8±0.58	9.4±0.62	4,461	< 0.001
tempo	6.9±0.77	9.2±0.85	2,794	< 0.05
Feelings	14.2±1.03	18.8±1.22	4,169	< 0.01
space	14.2±1.03	18.8±1.22	4,169	< 0.01
equilibrium	8.5±0.93	12.4±1.1	3,919	< 0.01
Musical ability	1.6±0.43	2.5±0.41	2,208	< 0.05
Musical ear	1.6±0.43	2.5±0.41	2,208	< 0.05
Musical memory	3.6±0.43	5.6±0.62	3,735	< 0.01
Dance test	33.8±1.87	41.9±1.65	4,717	< 0.001

n = 14 (f = 13) at $\rho < 0.05$, t = 2.1604; $\rho < 0.01$, t = 3.1123; $\rho < 0.001$, t = 4.220

Of the eight parameters studied, three indicators: “motor coordination”, “sense of rhythm” and “dance test” demonstrated a level of statistical significance of the initial and final data of $\rho < 0.001$. The indicators “sense of space”, “sense of balance” and “musical memory” showed statistical significance at $\rho < 0.01$.

These parameters are interconnected, since the performance of a dance composition requires mastery of a sense of rhythm and motor coordination. In turn, motor coordination develops on the basis of a sense of rhythm. During the period of early childhood, the central nervous system of 7-year-old children continues to mature. At this age, the accelerated rate of development of the cortical part of the motor analyzer creates optimal conditions for the formation and polishing of motor skills.⁷ N.V. Stambulova established that at the age of 7-10, there is a rapid development of the biodynamics of the child’s movements and, above all, the coordination component.⁸ Consequently, this age period is most favorable for the formation of physical qualities and coordination abilities, realized in the process of the formation of the child’s motor activity.⁹

At the same time, in psychology, psychomotor abilities are understood as a set of mental properties that ensure the accuracy of movement control.¹⁰ In the context of “action tasks” three components of psychomotor skills are distinguished: sensory (auditory, visual, tactile, vibration sensations), motor (muscle sensations of the trunk, arms, legs, fingers), which in our case is represented by the parameters of the sense of rhythm, tempo, balance, space, and cognitive (psychological mechanisms of information processing). On the other hand, according to well-known scientists,^{11,12} success in psychomotor activity is quite deeply associated with various manifestations of human coordination abilities. Thus, coordination abilities perform an important function in controlling his movements, namely, coordinating and organizing various motor actions into a single whole corresponding to the task at hand.

Two indicators – “sense of tempo” and “ear for music” – of the studied parameters revealed reliable performance at the level of $\rho <$

0.05. If we talk about the latest indicators, we can justify their level of reliability by the age of the gymnasts (7-8 years), within which the child's psyche is just beginning to form and this is considered one of the turning points in its development.

During this period, profound changes occur in the area of experiences. During the seven-year crisis, a "generalization of experiences" appears, due to which the logic of feelings appears. Experiences acquire a new meaning, their complication leads to the emergence of the child's inner life, manifested in his behavior and reactions to events in which he actively participates. Now the child thinks before acting, he becomes aware of what the implementation of this or that activity will bring him – satisfaction or dissatisfaction.

The sense of tempo and ear for music have similar characteristics due to age-related psychomotor development. The tempo of movements refers to the frequency of repetition of individual elements during the execution of any set of movements, which is determined by both the duration of the execution of these elements and the duration of the pauses between them.¹³ Musical hearing is the perception of individual sounds and the feeling of the relationship between them in the whole work. Of the numerous types (about fourteen) of musical hearing, we are interested in metro-rhythmic hearing, which is associated with distinguishing the strength and weakness of sound, their duration in sequence.¹⁴ BM Teplov¹⁵ presented and developed the "motor theory" of auditory representations and perceptions of S. Stricker, who argued that without appropriate movements, not only auditory representations of words/sounds, but also meaningful perception of speech/musical works are impossible.¹⁶ This is also confirmed by the research of IM Sechenov,¹⁷ KD Ushinsky.¹⁸ "Auditory sensations," writes IM Sechenov, "have an important advantage over others that already in early childhood they are closely associated with muscle sensations in the chest, larynx, tongue and lips".¹⁷

But, since dominant role in the ongoing changes child 7-8 years old is played by the function of thinking, when thought processes are intensively restructured, the developing intellect influences the formation of other mental functions. This age is a kind of turning point in the development of a little person. Therefore, in our opinion, the indicators of the indicated parameters showed a reliability of 95%, and not 99% or more, as happened with other psychomotor parameters. Although, in general, this does not change the overall picture of the results obtained.

Considering that human coordination ability reaches its highest developmental value by the age of 6-7, children involved in sports achieve virtuosity of the movements they are taught.¹⁹ This means that the developed dance training method has a positive effect on the development of psychomotor skills of young gymnasts.

In general, mathematical and statistical processing of the initial and final indicators of the tested parameters allowed us to state that during the period of the pedagogical experiment, the introduction of the developed dance training program into the system of rhythmic gymnastics classes for the second-year training group made it possible to sufficiently improve the development of psychomotor abilities in girls, therefore, the experimental methodology has the right to introduce it into the educational and training process in rhythmic gymnastics.

Conclusion

As a result of theoretical research, means were identified for instilling dance skills in girl's gymnasts, such as:

- i. modern dance: jazz modern, contemporary;
- ii. Latin American dances: rumba tango, foxtrot, jive;
- iii. folk dance: Russian, Moldavian, Ukrainian, Italian;
- iv. music;
- v. musical games.

The purposeful use of specially selected dance exercises/ combinations of elements contributes to the development of various motor abilities.

Dance warm-up in rhythmic gymnastics should be accompanied by music. For this purpose, music is selected and composed taking into account the age and interests of children, as well as its tempo and rhythm characteristics.

Dancing classes help children develop subtle skills in perception and assessment of the temporal, spatial and dynamic characteristics of movements. This, in turn, will increase their interest in completing tasks, which is important for the formation of a culture of movement.

It is recommended to include musical and rhythmic games not only in the training sessions of gymnasts, but also in physical education lessons. This will not only increase children's interest in classes, but also improve the emotional state of children.

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Conflicts of interest

The author declares that there are no conflicts of interest.

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