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PROGRAM OF FORMATION OF RHYTHM PERCEPTION IN RHYTHMIC GYMNASTICS AT THE STAGE OF INITIAL TRAINING.

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Abstract

The article describes the features of the program of formation the rhythm perception at athletes who are engaged in rhythmic gymnastics at the stage of initial training. In the article we showed the content and graduality of the complication, exercises that contribute to the formation of a sense of rhythm, as well as the features of the combination of the study of elements based on the similarity of the rhythm of their execution. The application of means and methods of forming a rhythm perception (in particular, the use of a ball, applause, etc.), and the complexity of the implementation of exercises in each stage of training according to the developed program are described. The features of exercises to different musical sizes and at different stages of the program are distributed and painted. **The goal is** development of the program of formation the rhythm perception for athletes engaged in rhythmic gymnastics at the stage of initial training. **Material and methods.** Analysis of specialized literature and scientific publications, pedagogical observation, questionnaires. **Results.** As a result of analysis of literature and modern scientific publications, we have developed a program for forming a rhythm sensation for athletes who are engaged in artistic gymnastics at the stage of initial training, which involves studying jumps and dance tracks with the assimilation of the rhythm of their performance. **Conclusions.** All exercises have a certain rhythmic structure, and athletes need to have a certain level of development of a sense of rhythm, to absorb and reproduce these rhythmic structures, and to perform qualitatively the exercises that they study. Based on the analysis of scientific sources and the questionnaire of trainers we have developed a program for forming rhythm sensation in athletes who are engaged in artistic gymnastics at the stage of initial training which includes the study of jumps and dance tracks, which in turn are divided into groups according to the rhythm and musical size of their performance.

Key words: program, rhythm, formation, gymnastics, artistic, training, elementary.

Оксана Сосновська, Роман Петрина. Програма формування відчуття ритму в художній гімнастиці на етапі початкової підготовки. У статті описано особливості програми формування відчуття ритму в спортсменок, які займаються художньою гімнастикою на етапі початкової підготовки. Показано зміст та поступовість ускладнення вправ, що сприяють формуванню відчуття ритму, а також особливості об'єднання вивчення елементів за схожістю ритму їх виконання. Описано застосування засобів і методів формування відчуття ритму (зокрема застосування м'яча, оплесків та ін.), і складність виконання вправ у кожному етапі занять за розробленою програмою. Розподілено та розписано особливості виконання вправ під різні музичні розміри. **Мета.** Розробка програми формування відчуття ритму в спортсменок, котрі займаються художньою гімнастикою на етапі початкової підготовки. **Матеріал і методи** – аналіз спеціалізованої літератури та наукових публікацій, педагогічне спостереження, анкетування. **Результати.** У результаті аналізу літератури та сучасних наукових публікацій ми розробили програму формування відчуття ритму для спортсменок, які займаються художньою гімнастикою на етапі початкової підготовки, у котрій передбачено вивчення стрибків і танцювальних доріжок із засвоєнням ритму їх виконання. **Висновки.** Усі вправи мають певну ритмічну структуру. Спортсменкам потрібно володіти певним рівнем розвитку відчуття ритму, щоб засвоювати та відтворювати ці ритмічні структури, якісно виконувати вправи, які вони вивчають. На основі аналізу наукових джерел й анкетування тренерів ми розробили програму формування відчуття ритму в спортсменок, які займаються художньою гімнастикою на етапі початкової підготовки у яку включено вивчення стрибків і танцювальних доріжок, які поділено на групи за ритмом та музичним розміром їх виконання.

Ключові слова: програма, ритм, формування, гімнастика, художня, підготовка, початкова.

Оксана Сосновская, Роман Петрина. Программа формирования чувства ритма в художественной гимнастике на этапе начальной подготовки. В статье описываются особенности программы формирования чувства ритма в спортсменок, занимающихся художественной гимнастикой на этапе начальной подготовки. Показывается содержание и постепенность усложнения выполнения упражнений, которые способствуют формированию чувства ритма, а также особенности объединения изучения элементов по сходству ритма их исполнения. Описываются применение средств и методов формирования чувства ритма (в частности применения мяча, хлопков и др.), и сложность исполнения упражнений на каждом этапе занятий по

разработанной программе. Распределяются и расписываются особенности выполнения упражнений под различные музыкальные размеры и на разных этапах разработанной программы. **Цель** – разработка программы формирования чувства ритма у спортсменок, занимающихся художественной гимнастикой на этапе начальной подготовки. **Материал и методы** – анализ специализированной литературы и научных публикаций, педагогическое наблюдение, анкетирование. **Результаты.** В результате анализа литературы и современных научных публикаций мы разработали программу формирования чувства ритма для спортсменок, занимающихся художественной гимнастикой на этапе начальной подготовки, в которой предусмотрено изучение прыжков и танцевальных дорожек с усвоением ритма их исполнения. **Выводы.** Все упражнения имеют определенную ритмическую структуру, и спортсменкам необходимо обладать определенным уровнем развития чувства ритма, чтобы усваивать и воспроизводить эти ритмические структуры, и качественно выполнять упражнения, которые они изучают. На основе анализа научных источников и анкетирования тренеров мы разработали программу формирования чувства ритма у спортсменок, занимающихся художественной гимнастикой на этапе начальной подготовки в которую включено изучение прыжков и танцевальных дорожек, которые, в свою очередь, разделены на группы по ритму и музыкальным размерам их выполнения.

Ключевые слова. программа, ритм, формирования, гимнастика, художественная, подготовка, начальная.

Analysis of scientific research and publications. The innovation in the competition rules from 2013 is the mandatory implementation of dance tracks in competitive exercises which still has no clear methodological justification for their study and improvement in the literature on rhythmic gymnastics. In order to be able to express music through movements, gymnasts need to possess a highly developed sense of rhythm [5]. According to the authors who have learned the rhythm of exercise it is easier for an athlete to master the technique of its execution [2, 5].

This necessitates a scientific search for improving the training of athletes using means of forming rhythm perception.

Each element has its own rhythmic structure which can be formed in the context of purposeful education of a sense of rhythm [2, 10]. Having determined the rhythmic structure of each element that is studied at the initial stage of training it is possible to significantly improve and accelerate the learning process of sports equipment and therefore the acquisition of basic technical training [2, 5-8].

In this regard we have developed a program for forming the rhythm perception of sportswomen who are engaged in rhythmic gymnastics at the stage of initial training which includes the study of dance tracks and jumps by applying certain methodological techniques that simplifies the study of these exercises and positively affects the training of sportswomen who are engaged in rhythmic gymnastics.

Material and methods of research. To achieve the purpose of the study, we used the analysis of specialized literature and scientific publications, pedagogical observation, questionnaires, checking the accuracy of the rhythm of control exercises, which reflected the rhythm of dance tracks and jumps, expert evaluation, mathematical treatment of the results.

In the pedagogical experiment participated 40 gymnasts at the stage of initial training (aged 6-8). The pedagogical experiment lasted 3 months.

Results. After studying the peculiarities of forming the rhythm perception in sports with difficult coordination we have developed a program for forming the rhythm perception in sportswomen who are engaged in rhythmic gymnastics at the stage of initial training.

As a result of the analysis of scientific and methodological literature we have identified the means and methods of developing of rhythm perception that we included into the program [1, 6-7].

Specialists in musical literature always begin to develop the rhythm perception by studying musical sizes, peculiarities of their reproduction. In rhythmic gymnastics, music has a leading role and the ability to express it through movements has always been of little importance, and the current rules of the competition emphasize this particular attention [4].

We conducted research on the peculiarities of the rhythm of performing basic jumps which gymnasts study at the stage of initial training, as well as distributed dances, which teach gymnasts to musical size. Summing up the investigated features of the rhythm of jumping and dancing tracks and by conducting a questionnaire of trainers we distributed jumps on the similarity of the rhythm of their performance to musical sizes. We simplified the task of studying jumps and dance tracks by combining them with the similarity of the rhythm and the musical size of their execution.

The program was divided into 3 stages. Tasks which aimed at forming a sense of rhythm were complicated at each stage. Each training session and each stage were selected with appropriate musical support taking into account the tasks of the training.

So, at the first stage of training on the developed program in one training session gymnasts learned only one type of musical size as well as the type of jumps that are as close as possible to this size.

At the second stage in each training session gymnasts are encouraged to absorb and reproduce all musical sizes, however, differentiating each musical size and variety of rhythm.

In the third stage of training for the developed program gymnasts are recommended to perform exercises with a change in musical size (for example 2 series of one exercise to execute in the amount of 2/4, two more - in the amount of 3/4), and perform various jumps of all kinds and dance tracks in all musical sizes).

The program of forming the rhythm perception for sportswomen who are engaged in rhythmic gymnastics at the stage of initial training has the following structure (Table 1):

Table 1

Distribution of exercises in the program of forming a sense of rhythm for athletes who are engaged in artistic gymnastics at the stage of initial training

Stage of the program	Stage I		Stage II		Stage III	
No lesson	Musical size under which warm-up exercises are performed and dance tracks are studied	The method of studying jumps	Musical size under which warm-up exercises are performed and dance tracks are studied	The method of studying jumps	Musical size under which warm-up exercises are performed and dance tracks are studied	The method of studying jumps
1-4	2/4	from the place	2/4, 3/4, 4/4	from the place, from step	2/4 – 3/4 – 4/4	All ways to jump
5-8	3/4	from step		from step, 3 наскоку		
9-12	4/4	with bounce, from takeoff		with bounce, from takeoff		
Number of series, repetitions of exercises	In 2 - 4 series of exercises in one music. Size, 5 to 8 repetitions of each dance track.	Each jump - 10 to 15 times.	In 2 - 4 series of exercises in one mus. Size, 5 - 8 repetitions of each dance track	Each leap is 4 to 8 times	Each leap - 8-10 times 2-4 series of exercises in one musical size, 5 to 8 repetitions of each dance track	Each leap is 4 to 8 times

Here is the content of the training session at the first stage of the program is described:

Lesson № 1

Preparation part

1. Explanation of the notion of musical size, listening to musical works in different sizes, performing applause, dancing in this size;

2. Performing warm-up exercises with a musical size of 2/4.

Main part

3. Repeating the rhythm of jumping from place to place, and studying the main positions of their execution;

4. Perform simple dance steps of 2/4, with pauses filled with applause in the size of 2/4.

Final part

5. Listening to music that has a music size of 2/4, exercises to restore to this music (for example breathing exhale, the trainer counts once or twice).

At the next training session under the same scheme, gymnasts study the musical size of 3/4, jump from step, and perform dances in the size of 3/4. And just in the third lesson, gymnastics study size 4/4, jumping from the attack.

That is, at the first stage of training for the first two weeks, the program developed has the following structure:

Table 2

Features of the first stage of the program of forming a sense of rhythm in artistic gymnastics at the initial stage of preparation

Musical size \ Part of lesson	2/4	3/4	4/4
Preparation	Exercise for a 2/4 warm-up.	Exercise for 3/4 size workout.	Exercise for 4/4 size workout.
Basic	Repeating the rhythm of jumping from place to place, and studying the main positions of their execution, performing underwater exercises; Performing simple dance steps of 2/4, with pauses filled with applause in the size of 2/4. Repeating the rhythm of jumps from a step, and studying the main poses for their performance, performing preparatory exercises;	Performing simple 3/4 dance steps, with pauses filled with applause of 3/4. Repeating the rhythm of jumps from the onslaught, or from the run-up and studying the main poses for their performance, performing preparatory exercises;	Performing simple 4/4 dance steps, with pauses filled with applause in the size of 4/4. Repeating the rhythm of jumps from the onslaught, or from the run-up and studying the main poses for their performance, performing preparatory exercises.
Final	Listening to music that has a music size of 2/4, varieties of ball reflections in this size, recovery exercises at the expense corresponding to the size of 2/4	Listening to music that has a musical size of 3/4, the types of ball reflections in this size, recovery exercises at the expense corresponding to the size of 3/4	Listening to music that has a musical size of 4/4, varieties of ball reflections in this size, recovery exercises at the expense corresponding to the size of 4/4

As a result of the application of the first stage of the program, there is a significant difference between the rhythm of control exercises that reflect the rhythm of the dance tracks. In the experimental group of gymnasts the error of reproduction of the rhythm was from 128.15 to 67.92 ms. less than in control group of gymnasts ($p < 0.05$). However, the results of reproduction the rhythm of jumps do not have a significant difference between the gymnasts of the control and experimental groups which is explained by the complexity of the rhythm of jumps ($p > 0.05$) (fig.1).

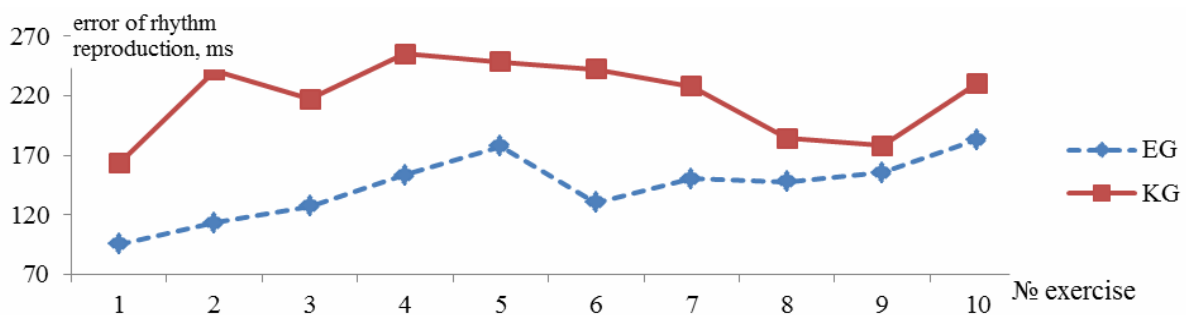


Fig.1. Error of reproducing the rhythm of control exercises after the first stage of the experiment

At the next stage of studying the developed program at in one lesson gymnasts performed a warm-up to different musical sizes, played a rhythm performing jumps different ways of preparation and performed dances for different musical sizes (table 3).

Table 3

Features of the second stage of the program of forming a sense of rhythm in artistic gymnastics at the stage of initial training

	Monday	wednesday	Friday
Musical size	2/4, 3/4, 4/4		
Part classes			
Preparation	Exercise in musical size 2/4, 3/4, 4/4.		
Basic	Repeating the rhythm of jumping from place - performing jumps from place, similar to playing the rhythm of jumps from the pitch and their execution, then from the onslaught and from the run; Perform dance steps in size 2/4, then 3/4, 4/4 with pauses, filled with applause in appropriate sizes.		
Final	Competitive tasks for the best performance of the dance track in a given trainer musical size, on guessing musical size, musical-rhythmic games, variations of ball reflections in various sizes. Restoration exercises for an account that matches different musical sizes.		

As a result of the application of the second stage of the program in the experimental group of sportswomen, the indicators of the rhythm error of all control exercises are significantly lower than in the control group of gymnasts ($p < 0.01$). Also, significant changes occurred between rhythm performance and experiment. And as a result of the application of the first and second stages of the program there was a significant improvement in the rhythm reproduction rates of control exercises ($p < 0.01$). With the gymnasts of the control group there were no significant changes in the rhythm reproduction rates ($p > 0.05$), (fig.2).

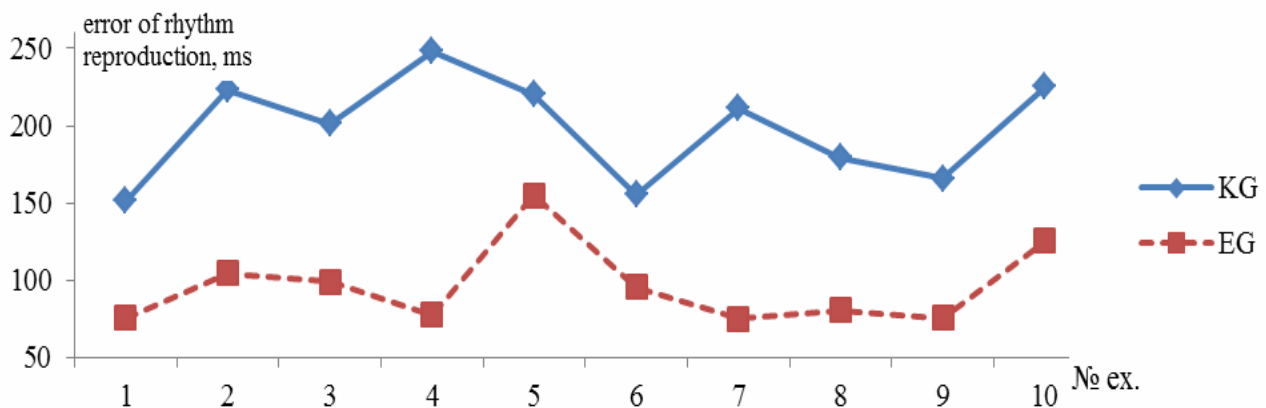


Fig.2. Error of reproducing the rhythm of control exercises after the second stage of the experiment

In the 3rd stage of the developed program gymnasts performed during the warm-up, performed each exercise changing of the musical size, performed a variety of jumps, and dance with a changing its size (table 4).

As a result of the application of three stages of the program for forming the rhythm sensation in the gymnasiums of the experimental group, there has been a significant improvement in the parameters of the rhythm reproduction of control exercises, both with the indices within the group up to the experiment, and in comparison with the performance of the gymnasts of the control group (Fig.3).

Table 4

Features of the third stage of the program of forming a sense of rhythm in artistic gymnastics at the initial stage of preparation

	Monday	Wednesday	Friday
Musical size			
Part occupation	2/4 - 3/4 - 4/4		
Preparatory	Exercise during a warm-up with a change in musical size once (eg 2 series in 2/4, two in 3/4, etc.)		
Basic	Repeating the rhythm of jumping from place - performing 2 types of jumps from the place, then recreating jumps from the onslaught - performing 2-3x kinds of jumps from the onslaught, playing the rhythm of jumps from the pitch - performing jumps from the pitch, etc. ; Performing applause and other exercises, changing musical size, and performing dance steps with the same size change. Execution of applause in one musical size with the use of triples, and trio dancing.		
Final	Competitive tasks for the best performance of the dance track in a given trainer musical size, on guessing musical size, musical-rhythmic games, variations of ball reflections in various sizes. Restoration exercises for an account that matches different musical sizes.		

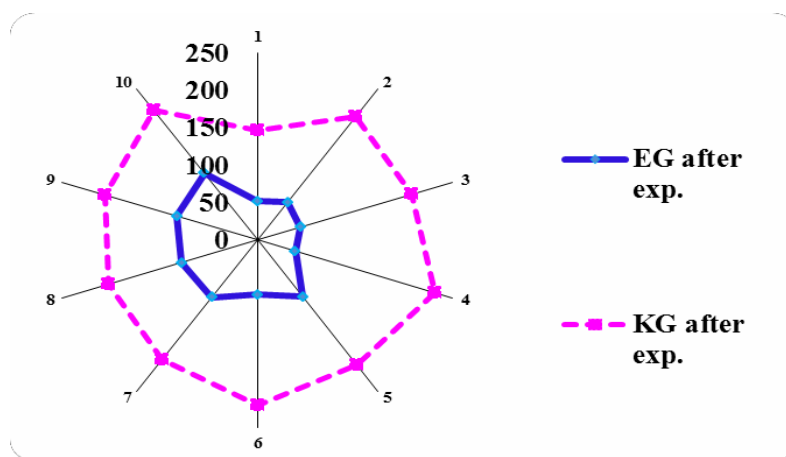


Fig. 3. Error of reproducing the rhythm of control exercises after the experiment

Also, in the experimental group, there are the highest estimates for the technique of performing jumps, (Fig. 4) and dance tracks (Fig. 5) are higher than in the gymnasts of the control group.

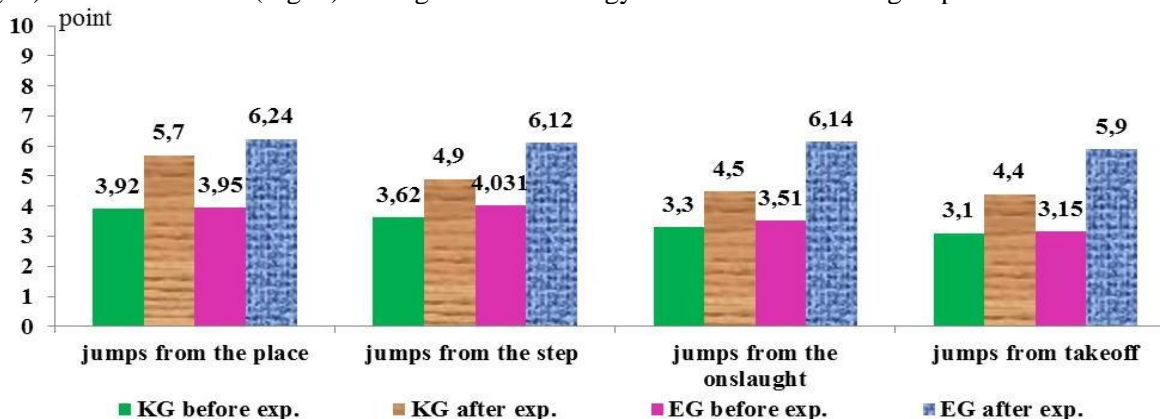


Fig. 4. Expert evaluation for performing jumps by gymnasts of the experimental group and the control group before and after the experiment

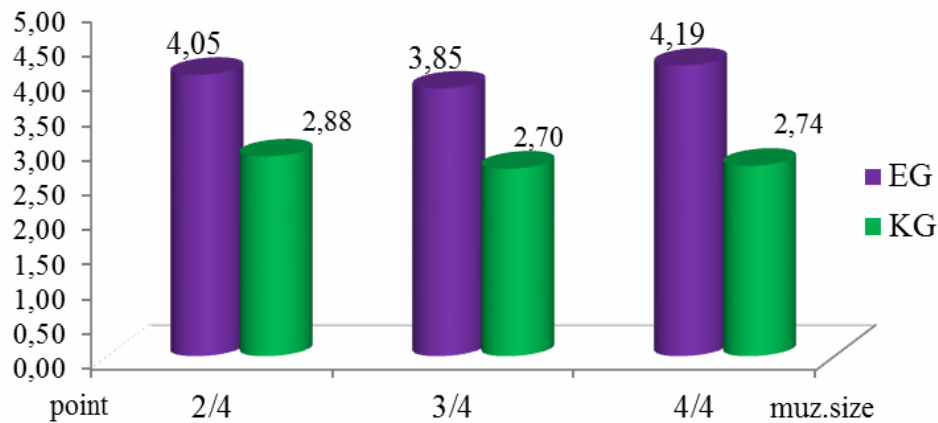


Fig. 5. Estimation for the performance of dance tracks in one musical rhythm by the gymnasts of the control and experimental group after the experiment

Conclusions. In order to improve the quality of the technique of the sportswomen who are engaged in rhythmic gymnastics at the initial stage of training, we have developed the program of formation the rhythm perception in which the study of exercises is distributed according to the musical size and rhythm in which they are convenient to perform. This approach simplifies the task of trainer coaching for jumping techniques and dance tracks.

Prospects for further research. It is planned to develop methodical materials for trainers in rhythmic gymnastics to determine the musical size of music “aurally”, the search for computer programs that will allow you to determine the musical size of the composition, under which it is planned to formulate competitive exercises, its parts, which facilitate the setting of competitive exercises, and their performance by gymnasts at different stages of preparation.

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