

Formation of sports specialization as the "group exercises" during the working with young athletes in the rhythmic gymnastics

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Abstract

The article is devoted to the actual problem of the forming the specialization as the "group exercises", the technology of selection, orientation and preparation of athletes for the group exercises in artistic gymnastics at the stages of initial and preliminary basic sports preparation. There were formed the necessity of the formation of specialization, the educational technology of selection and orientation of the gymnasts training is presented in the group exercises of rhythmic gymnastics. The authors substantiate the approach to the formation of specialization and characteristics of the technology of selection and orientation. The components and advantages of the proposed technology are explored. The criteria for selecting of the gymnasts for group exercises at the stages of initial and preliminary basic sports preparation are systematized. Experimentally tested technology of the selection, orientation and preparation of athletes in group exercises in the initial stages, which can be used at various stages of multi-year improvement. The main results of the studying have found their practical application in the training process of training young athletes in the stage of initial and preliminary basic sports preparation.

Key words: rhythmic gymnastics, sports specialization, group exercises, selection, orientation, criterion, assessment system.

Introduction

Group exercises in the rhythmic gymnastics by the nature of the motor activity is the most difficult independent Olympic kind of competition program. Its current development is characterized by a continuous change in the international rules of the competition (E. Balabanova, 2006; O. Khudolii, 2012), constant improvement of the competitive compositions due to increasing complexity, increasing the difficult level of the performed stunts (T. Nesterova, I. Syvash 2011). Each motor task in the group exercise is decided collectively by the team (L. Karpenko, 2003; A. Kwitniewska 2009). The duration of group exercises is twice as large as individual ones, and the elements are much more complicated by the basic of the motor activity (I. Nochevna, 1990). The complexity of the structure of motor actions requires from the gymnasts to accurately reproduce spatially and force parameters of movements, the speed of reaction to a moving subject, attention and quick thinking (O. Khudolii, 2012). To achieve a high competitive result, teams need to demonstrate an impeccable technique of motor interactions associated with rollovers, rolls, transfers of the objects to each other, coordinated synchronous or asynchronous work, the ability to perform exercises with a single amplitude, in one tempo and rhythm (E. Balabanova, 2005; T. Nesterova, 20011; A. Kwitniewska, 2009; M. Shyshkovs'ka, 2011; B. Sosina, 2013; O. Zhyrnov, V. Bohuslavskaya, I. Hruzevych, 2017).

Sport results in group exercises of rhythmic gymnastics during the last three Olympic cycles (2004–2012) testify to the need of developing a highly effective system of multi-year sports preparation in the group exercises (I. Nochevna, 1990; Nesterova, I. Syvash 2011), whereas in the established systems of training gymnasiums in the different countries as a rule the processes of formation of their specialization in group exercises are not reflected. It does not exist in the sport school programs and curricula, which in turn results in non-compliance with the requirements of this Olympic type of competition and the preparation of gymnasts participating in group exercises in the process of long-term improvement. Despite this, group exercises occupy 50% of the entire competition program, and competition for teams of young gymnasiums in Ukraine involves participation in them, starting from the second youth category in this kind of sport (age 9-10 years).

Bringing the fact, that in Ukrainian gymnastics the preparation of athletes in group exercises is carried out immediately before competitions; their purposeful orientation in the multi-year process is not traced, which is confirmed by the results of the performances on the world stage and the rating of the team of Ukraine in group exercises (FIG, 2010-2012), the development of a well-grounded approach to the formation of the specialization of "group exercises" in the process of multi-year improvement and the system of selection, orientation and preparation of gymnasts is an actual scientific problem.

Purpose of the research

The research is devoted to the substantiation of the approach to the formation of the specialization gymnasts in the "group exercises" in the stages of initial and preliminary basic sports preparation with the further development of technology selection, orientation, and training of athletes in group exercises.

Materials & Methods

Participants

There were 46 trainers and judges of rhythmic gymnastics of different qualifications in the researchers' respondents and experts.

Procedure/Measure/Instruments

The following research methods were used for solving the tasks and obtaining objective data, there are the analysis of scientific and methodological and special literature, official documents, questionnaires, analysis of video recordings, the method of expert evaluation (according to the Delfian method).

In the process of substantiation of the approach to the formation of the specialization of gymnasts in the "group exercises", there were analyzed the modern sources of the scientific literature and methodical materials on the research problem; expert estimation method, practical experience in training gymnasts in group exercises and their orientation were studied. For the information about the effectiveness of the approaches to the formation of the specialization of gymnasts in the "group exercises" we were performed an analysis of the competitive activities of the strongest teams of the world, as the participants in the finals of the Olympic Games in the 1996-2012, the World Championships in the 2009-2011 under the program of double-event in the group exercises; analysis of team appearances at Ukrainian Championships and Cups 2010-2012. There were conducted the components of the characteristics of group exercises.

Statistical analysis

Statistical processing of expert evaluation and questionnaire results was carried out by the using nonparametric statistics the Microsoft Excel 2010 software package.

Results

Experts ($n = 46$) indicate that in modern rhythmic gymnastics the group exercises is characterized by an increase in the amount of work with the subject and body (65% of the time), which is associated with a significant amount of time to improve them, working out the elements of exchange (22.5 %), interaction and cooperation (12.5%). The above motor actions is a complex from the coordination combination of movements of individual parts of the body with different objects. Accomplishment of them in combination with musical accompaniment requires from the athletes first of all significant physical abilities ($W=0,91$; $p<0,05$), but also a sufficient level of development of special motor qualities ($W=0,89$; $p<0,05$), and ability for the expressly and artistically submit elements ($W=0,73$; $p<0,05$), needed for the performance of the composition. Experts also point out that the correct technical movements formed at the initial stages of training are constantly evolving and will improve at the next stages, provide the growth of craftsmanship ($W=0,73$; $p<0,05$), and even the smallest deviations from them lead to a significant number of motor errors ($W=-0,67$; $p<0,05$), that will later be transferred to more complex elements. The opinion of experts that the formation of specialization in the group exercises should be organized at the initial stages of many years of improvement, starting with the groups of initial training was unanimous.

Under the notion as the "formation of specialization" is understood the process of the formation and development of discipline the "group exercises" of rhythmic gymnastics, which is characterized by a specific composition of the tasks of specialization. The main feature of the "group exercises" specialization is the implementation of the competition program on rhythmic gymnastics in the team as a separate independent unit. The questionnairing of referees in the rhythmic gymnastics ($n = 42$) allows us to determine the strategic directions of the preparation of gymnasts, there are followed: athletes are concentrated on joint actions (97% of respondents), which are manifested in the same and consistent work, clarity and fidelity, stability in cooperation, synchronism and asynchrony in work gymnasts and objects achieved by common interests, motivation, teamwork, etc..

Analysis of the performances of the leaders of the Olympic Games in 1996-2012 shows that the "group exercises" specialization in the rhythmic gymnastics, characterized by a sequence of actions that fundamentally different from individual training, but is based on the school of rhythmic gymnastics and does not go beyond its subject-content foundations. The basis of the approach to the formation of the specialization of young gymnasts in the group exercises at the stages of initial and preliminary basic sports preparation is the theoretical knowledge and practical experience of rhythmic gymnastics and related disciplines. Its elements, which unite the process of formation of specialization and create prospects for the long-term improvement of gymnasts, are the laws of age development and the beginning of specialization, indicators of sports orientation and selection, bringing the natural attitudes of athletes to perform group exercises, tools and methods of sports training, criteria

and components of special preparedness (Fig. 1).

Given that specialization is formed taking into account the integrity of the selection, orientation and direct preparation of gymnasts, we used a systematic approach that allowed to consider all the components of the formation of specialization as a set of interacting elements that form an integral system.

Formation of specialization includes interconnected components, where tasks are solved step by step during long-term improvement, causes further training of gymnasts and puts forward special requirements for the selection and further orientation of the training process.

The whole system of sports preparation of the gymnasts in the group exercises is constructed as a multi-year and continuous process, where all elements and components of its preparation are interconnected and subordinate to the task of achieving the maximum sports result, and their interaction allows to create a system organically linked with the stages of long-term preparation, and with levels of selection and orientation.

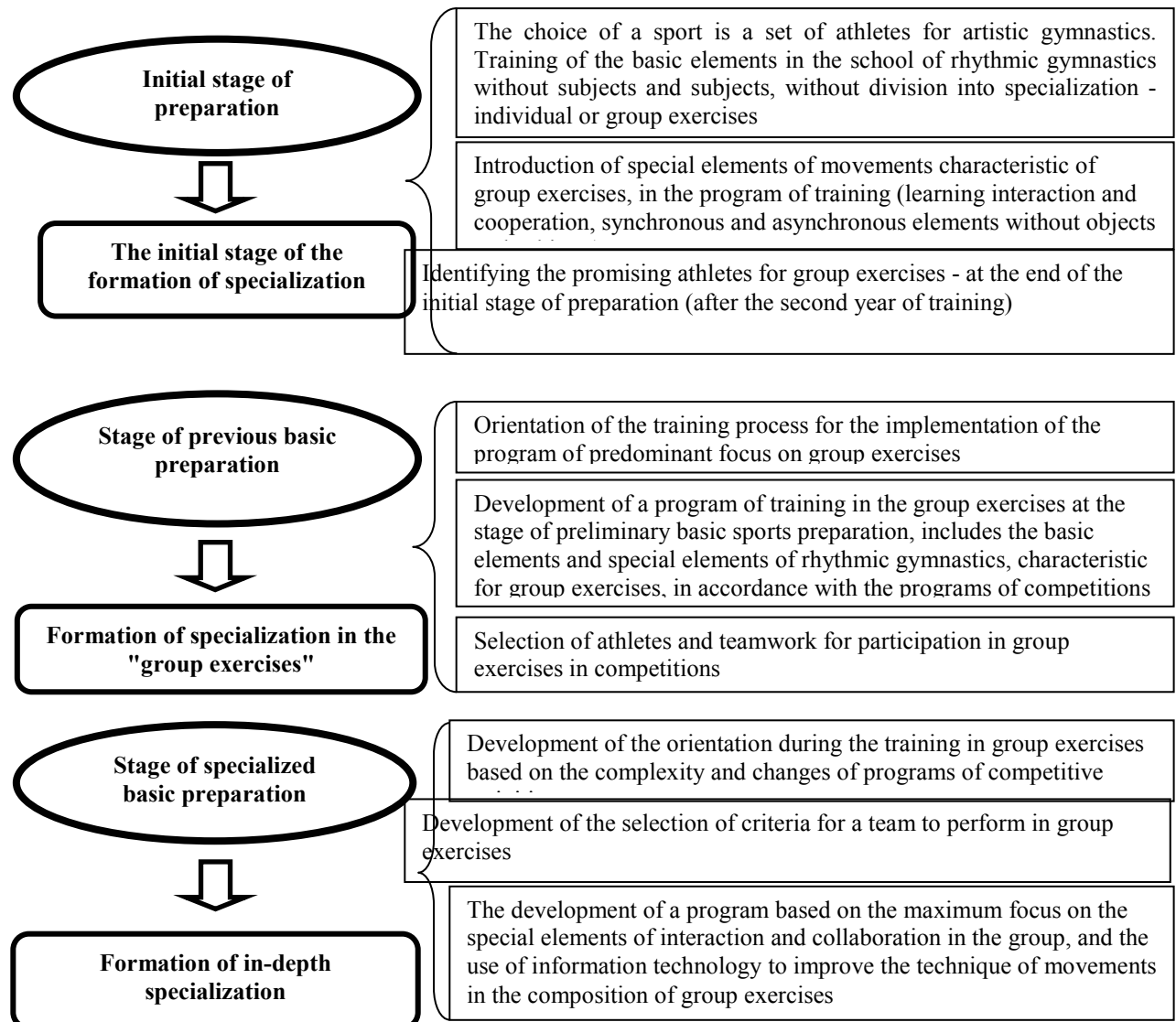


Fig. 1. Structural scheme of formation of specialization in the "group exercises" in rhythmic gymnastics

The technology of selection and orientation, we considered as an ordered set of actions, operations, and procedures that ensure the achievement of the predicted result, which is presented in the form of a scheme (Fig. 2).

We proceeded from the fact that technology is a framework, and the method is a shell, a form of activity of the trainer. The function of the technology is to build a selection and orientation of the training process of athletes in the group exercises, which provides a given result. This is possible in determining what implements one of the important functions of technology, there is the transfer of experience and use of its other.

The components of the technology determine the purpose and content of the selection and targeting

process for athletes in group exercises for each stage of multi-year training process; criteria, indicators and normative values; assessment of the initial and current condition of the preparedness of gymnasts, development of a program of training in group exercises, selection of group exercises and further orientation of their training.

The leading trainers in Ukraine (n = 46) identified eight selection criteria that need to bring at the initial stage of preparation, there are followed: health condition - 92.5%; anthropometric indices (body length, body weight, girth of the chest, waist, foot size) - 88.5%; level of physical preparedness - 73.6%, motivation - 70.2%; quality of assimilation of movements and evaluation of development of motor qualities - 64.2%; social indicators (attitude and interest of parents and the child to sports) - 62.2%; the optimal age for starting classes is 58.9%.

The constitutional features of the child are one of the main criteria for primary selection, according to 88.5% of the trainers (n = 46), participated in the survey. During the selection, trainers preferred the girls with muscle-asthenic and thoracic type, with the narrow pelvis, fine bone. The selection was conducted in the presence of parents in order to bring hereditary signs (as the height, weight, chest circumference, foot size). In the process of primary selection, preference was given to tests that characterize motor ability, to a large extent due to congenital injections. Motivation for the sports activity is an informative criterion (70.2%) and occupies a prominent place among the selection criteria, therefore, they found out the motives of the rhythmic gymnastics and the presence or absence of a formed interest in the sport. From the social criteria of selection, an indicator of the attitude of parents to the taking of a child by artistic gymnastics was allocated (55.8%). The distinguished criteria were used during the selecting process for initial education groups and assessing the preparedness of children in the first years of study. Also, these criteria were used to determine the contingent of gymnasts who participated in the experiment at the initial training stage.

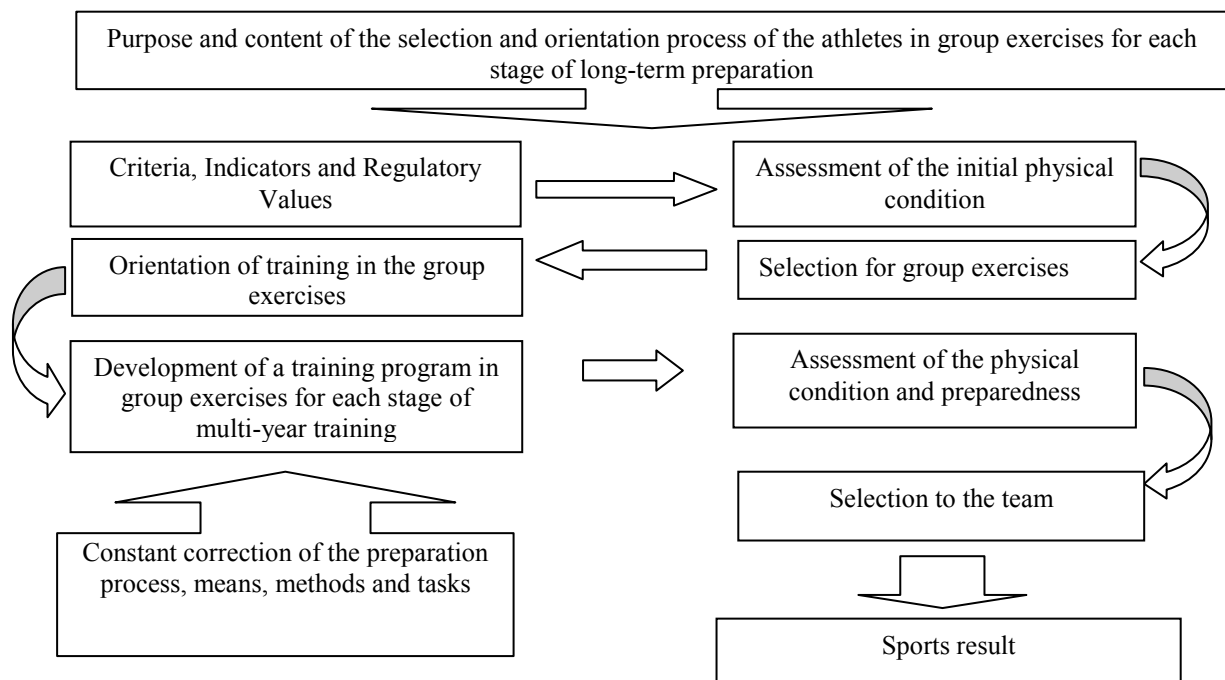


Fig. 2. Structural scheme of the technology of selection, orientation, and training of athletes in the group exercises

Therefore, we were identified selected informative criteria, control tests for assessing the abilities of children focused on group exercises. According to the results of the questionnaire (n = 46, W = 0.77), the essential criteria for the physical fitness of gymnasts for group exercises at the initial stage are follows: the coordination ability, the flexibility (as the mobility in the vertebral, hip and shoulder joints), strength endurance, speed and jumping.

The motor compatibility of gymnasts in the team is the basis of the learning process of joint motor actions that are manifested in a coherent joint work, clarity, and fusion, the stability of the implementation in collaboration, synchrony and asynchrony in the gymnasts work. This is possible due to the unified technical preparedness for all gymnasts of the group, which is laid out from the first days of classes. That is why the development of joint interactions and becomes crucial in the construction of the training process in the process of forming a specialization in group exercises of rhythmic gymnastics at the stage of initial training.

Discussion

Formation process of the "group exercises" specialization in the rhythmic gymnastics at the stages of initial and preliminary basic sports preparation is an actual task at the present stage of development of this kind

of sport. The introduction of the technology of selection, orientation and preparation of gymnasts allows a finding capable athletes who meet the requirements of a certain stage of sports preparation and improve the effectiveness of the trainer.

We are confirming the opinion of many experts that world trends in the development of the group exercises as an Olympic discipline, the increasing complexity of competitive programs (L. Karpenko, 2012; R. Kropta, I. Hruzevych, 2018), the features of competitive activity, accompanied by a high substantive preparedness with performing skills of gymnasts (R. Kropta, 2004; V. Sosina, V. Linishyn, 2012; O. Khudolii, 2012). It has also been confirmed data about the testing procedure for athletes-beginners, testing should be as simple and accessible as possible, using standard tests to determining the level of general physical fitness of children. After conducting preliminary training of the basics in the gymnastics school, for more accurate identification of the child's perspective and assessment of her abilities, tests can be recommended reflecting the abilities characteristic of rhythmic gymnastics.

The materials of the presented research supplement and expand the scientific data about the criteria for the selection of gymnasiums at the initial stage (E. Balabanova, 2006; Nesterova, I. Syvash 2011; O. Khudolii, 2012) the using of the of standard and special tests at selection (A. Kwitniewska, 2009). The results of the study complement the authors' conclusions, about the success of performances of gymnasts in group exercises depends on the uniform technical preparation of the entire team.

Conclusions

Analysis of literary data and generalization of practical experience in the preparation of gymnasts indicates the complication of competitive activities in the group exercises of gymnastics with each Olympic cycle. The sporting result in group exercises is influenced by the technical complexity of the composition, originality, executive skill and artistry, the level of subject preparedness of gymnasts. Competitive compositions are characterized by a large variety of constructions and alterations, interactions of gymnasts, manifested in specific forms of movements (supports).

The high competitive result in the group exercises is achieved at the expense of impeccable technique of the motor interactions, rebounds, throws, gears of objects to each other, coordinated work, the performance of exercises in one tempo and rhythm, with the same amplitude. It needs a considerable amount of time to improve the elements of both the body and the object; working out elements of exchange, interaction, and cooperation, sufficient level of special physical, technical, tactical and choreographic preparedness gymnasts.

The efficiency of the system of the long-term training process of leading world teams in the group exercises is confirmed by their high sports results. In the system of training in the rhythmic gymnastics in Ukraine, the processes of formation of the specialization of athletes in the group exercises, in programs and curricula there is no specialization, preparation is carried out directly before competitions in group exercises (two or three months before the start).

The approach to the formation of the specialization of gymnasts in group exercises at the stages of initial and preliminary basic training is substantiated in this article. Its elements, uniting the process of formation of the specialization and which create the prospects of long-term improvement, are the laws of age development and the beginning of specialization, indicators of selection and sports orientation of athletes to perform the group exercises, tools and methods of sports training, components, and criteria of special preparedness. Formation of the specialization is considered as a process of formation and development of discipline the "group exercises" in the rhythmic gymnastics, characterized by a specific composition of the decision during the specialization tasks. The main feature of the "group exercises" specialization is the implementation of an adventure program on rhythmic gymnastics in the team as a separate independent unit, where the preparation of gymnasts focuses on the implementation of joint actions that are manifested in the same and consistent work, clarity, stability in cooperation, synchrony, and asynchrony in the work of gymnasts and objects that are achieved due to the common interests, motivation, teamwork, etc.

The "Group exercises" specialization is characterized by a sequence of actions that is different from individual training, but is based on the school of the rhythmic gymnastics and does not go beyond its substantive and substantive basis. Formation of specialization includes followed marks, there are: the choice of sport, as a set of athletes in artistic gymnastics; the training basic elements in the rhythmic gymnastics school without subjects and subjects without division into specialization, as an individual and group exercises; the introduction of special elements of movements characteristic of group exercises, at the end of the initial stage of the sports preparation; the development process of the program of training in the group exercises, corresponding to the program of competitions for this age gymnasts; the definition of the talented athletes for the group exercises, the orientation of the training process for the implementation of predominantly program of the group exercises at the stage of preliminary basic training; the selection of athletes and teamwork for participation in the group exercises at competitions at the stage of preliminary basic training; formation of in-depth specialization at the following stages of long-term improvement.

The developed technology of selection and orientation of the training in the group exercises of rhythmic

gymnastics is characterized by the stage of events and contains organizational, methodical components, system of tests, the program of training the main elements of the joint motor interactions of gymnasts in the group, selection program, criteria and assessment scales. The technology of the selection and orientation is considered as an ordered set of actions that ensure the achievement of the predicted result in conditions that change in the training process of young gymnasts.

Conflicts of interest – If the authors have any conflicts of interest to declare.

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